CITY OF INDUSTRY

CITY COUNCIL
REGULAR MEETING AGENDA

DECEMBER 8, 2016
9:00 AM

Mayor Mark Radecki
Mayor Pro Tem Cory Moss
Council Member Abraham Cruz
Council Member Roy Haber, III
Council Member Newell Ruggles

Location: City Council Chamber, 15651 East Stafford Street, City of Industry, California 91744

Addressing the City Council:

- ***Agenda Items:*** *Members of the public may address the City Council on any matter listed on the Agenda. In order to conduct a timely meeting, there will be a three-minute time limit per person for any matter listed on the Agenda. Anyone wishing to speak to the City Council is asked to complete a Speaker's Card which can be found at the back of the room and at the podium. The completed card should be submitted to the City Clerk prior to the Agenda item being called and prior to the individual being heard by the City Council.*

- ***Public Comments (Non-Agenda Items):*** *Anyone wishing to address the City Council on an item not on the Agenda may do so during the "Public Comments" period. In order to conduct a timely meeting, there will be a three-minute time limit per person for the Public Comments portion of the Agenda. State law prohibits the City Council from taking action on a specific item unless it appears on the posted Agenda. Anyone wishing to speak to the City Council is asked to complete a Speaker's Card which can be found at the back of the room and at the podium. The completed card should be submitted to the City Clerk prior to the Agenda item being called by the City Clerk and prior to the individual being heard by the City Council.*

Americans with Disabilities Act:

- *In compliance with the ADA, if you need special assistance to participate in any City meeting (including assisted listening devices), please contact the City Clerk's Office (626) 333-2211. Notification of at least 48 hours prior to the meeting will assist staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting.*

Agendas and other writings:

- *In compliance with SB 343, staff reports and other public records permissible for disclosure related to open session agenda items are available at City Hall, 15625 East Stafford Street, Suite 100, City of Industry, California, at the office of the City Clerk during regular business hours, Monday through Friday 9:00 a.m. to 5:00 p.m. Any person with a question concerning any agenda item may call the City Clerk's Office at (626) 333-2211.*

1. Call to Order

2. Flag Salute

3. Roll Call

4. Public Comments

5. CONSENT CALENDAR

All matters listed under the Consent Calendar are considered to be routine and will be enacted by one vote. There will be no separate discussion of these items unless members of the City Council, the public, or staff request specific items be removed from the Consent Calendar for separate action.

5.1 Consideration of the Register of Demands for November 10, 2016

RECOMMENDED ACTION: Approve the Register of Demands and ratify the issuance of the checks.

5.2 Consideration of Proposition A Assignment Agreement between the City of Industry and the City of La Verne.

RECOMMENDED ACTION: Approve the Agreement.

5.3 Consideration to close City Hall between the Christmas and New Year Holiday (December 26th through December 30th).

RECOMMENDED ACTION: Approve the extended holiday closure.

6. ACTION ITEMS

6.1 Presentation by Ben Wong to provide an update on IMC Organizational Refocusing, Restructuring, and Rebranding.

RECOMMENDED ACTION: Receive and file the Report.

6.2 Consideration of Resolution No. CC 2016-80 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA, AUTHORIZING AND DIRECTING THE EXECUTION AND DELIVERY OF AN AMENDMENT NO. 1 OF AGREEMENT FOR STATE ADMINISTRATION OF LOCAL SALES AND USE TAXES; AND AUTHORIZING NECESSARY ACTIONS IN CONNECTION THEREWITH.

RECOMMENDED ACTION: Adopt Resolution No. CC 2016-80.

6.3 Consideration of an Architecture Services Bench, to provide staff augmentation services and development review services, environmental review services, transportation planning services, and environmental planning services to the City on an as-needed basis.

RECOMMENDED ACTION: Approve the Architecture Services Bench.

6.4 Consideration of a Planning Services Bench, to provide staff augmentation services, development review services, environmental review services, transportation planning services, and environmental planning services to the City on an as-needed basis.

RECOMMENDED ACTION: Approve the Planning Services Bench.

6.5 Consideration of an Engineering Services Bench, to provide civil engineering services, structural engineering services, project management/construction management services geotechnical engineering services, survey and right-of-way engineering services, traffic and transportation engineering services, contract funding and administration services, permit inspections, potable water, recycle water and storm water design services, electrical engineering services, internet and data utility design services, landfill management design services, ADA and CASp support services, and environmental engineering services to the City on an as-needed basis.

RECOMMENDED ACTION: Approve the Engineering Services Bench.

6.6 Consideration of an Agreement for Construction Services with All American Contracting Corporation for interior upgrades and code compliance repairs at 16200-5 Temple Avenue, in an amount not-to-exceed $359,106.00.

RECOMMENDED ACTION: Approve the Agreement.

6.7 Consideration of an Agreement for Construction Services with All American Contracting Corporation for interior repairs, mold and termite remediation, and upgrades at 16224 Temple Avenue, in an amount not-to-exceed $130,951.50.

RECOMMENDED ACTION: Approve the Agreement.

6.8 Consideration of Amendment No. 1 to the Maintenance Services Agreement with Applied Metering Technologies, Inc., for utility operations and maintenance services in an amount not-to-exceed $105,000.00, through September 8, 2016 to December 8, 2019.

RECOMMENDED ACTION: Approve the Agreement.

6.9 Consideration of a Professional Services Agreement with ENCO Utility Services, LLC, for customer account services in an amount not-to-exceed $90,000.00, from December 8, 2016 to December 8, 2019.

RECOMMENDED ACTION: Approve the Agreement.

6.10 Consideration of a Professional Services Agreement with Annealta Group to providing Planning Services in an amount not-to-exceed $834,600.00 from December 8, 2016 to December 8, 2019.

RECOMMENDED ACTION: *Approve the Agreement.*

6.11 Consideration of a Professional Services Agreement with Jason Addison Smith Consulting Services, Inc., to provide Construction Management Support Services in an amount not-to-exceed $499,200.00 from December 8, 2016 to December 8, 2017, with two additional one year renewal options.

RECOMMENDED ACTION: *Approve the Agreement.*

6.12 Consideration of a Right-of-Way Agreement with Sunesys, LLC, to locate certain facilities in City right-of-ways.

RECOMMENDED ACTION: *Approve the Agreement.*

6.13 Consideration of a Supplemental Agreement with Union Pacific Railroad to an Agreement dated August 10, 1961, to allow the installation of two (2) parallel 1.5 inch schedule 80 PVC conduits for the purpose of collecting storm water samples for a storm water quality program done in conjunction with Los Angeles County Department of Public Works.

RECOMMENDED ACTION: *Approve the Agreement.*

7. PUBLIC HEARING

7.1 Public Hearing for the consideration of Tentative Parcel Map 350 to subdivide an existing 13.4 acre parcel into seven parcels. Zone Exception 16-1 to reduce the front setback requirement on Loukelton Street from 30 feet from the curb to 15 feet from the curb, and Development Plan 16-3, to develop seven new industrial warehouse buildings located on the southwest corner of Loukelton Street and Echelon Avenue in the City of Industry, and mitigated negative declaration regarding the same.

a. Consideration of Resolution No. CC 2016-78 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA, ADOPTING AN INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION AND A MITIGATION MONITORING AND REPORTING PROGRAM FOR THE ECHELON AVENUE INDUSTRIAL PROJECT PROPERTY LOCATED AT THE SOUTHWEST CORNER OF LOUKELTON STREET AND ECHELON AVENUE IN THE CITY OF INDUSTRY, WITHIN THE "I" INDUSTRIAL ZONE.

RECOMMENDED ACTION: Adopt Resolution No. CC 2016-78.

b. Consideration of Resolution No. CC 2016-79 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA, APPROVING TENTATIVE PARCEL MAP 350 TO SUBDIVIDE AN EXISTING 13.4 ACRE PARCEL INTO SEVEN PARCELS, ZONE EXCEPTION 16-1 FOR A REDUCED SETBACK ON LOUKELTON STREET AND MINOR PARKING AND LANDSCAPING DEVIATIONS AND DEVELOPMENT PLAN NO. 16-3 FOR THE CONSTRUCTION OF SEVEN INDUSTRIAL WAREHOUSE BUILDINGS AT THE PROPERTY LOCATED SOUTHWEST OF THE INTERSECTION OF LOUKELTON STREET AND ECHELON AVENUE IN THE CITY OF INDUSTRY, CALIFORNIA.

RECOMMENDED ACTION: Adopt Resolution No. CC 2016-79.

8. **CITY COUNCIL COMMITTEE REPORTS**

9. **AB 1234 REPORTS**

10. **CITY COUNCIL COMMUNICATIONS**

11. Adjournment to Thursday, December 22, 2016 at 9:00 a.m.

CITY COUNCIL

ITEM NO. 5.1

CITY OF INDUSTRY
AUTHORIZATION FOR PAYMENT OF BILLS
CITY COUNCIL MEETING OF DECEMBER 8, 2016

FUND RECAP:

FUND	DESCRIPTION	DISBURSEMENTS
100	GENERAL FUND	1,370,452.46
120	CAPITAL IMPROVEMENT FUND	124,240.07
161	IPUC - ELECTRIC	452,389.50
TOTAL ALL FUNDS		1,947,082.03

BANK RECAP:

BANK	NAME	DISBURSEMENTS
BOFA	BANK OF AMERICA - CKING ACCOUNTS	396,418.30
WFBK	WELLS FARGO - CKING ACCOUNT	1,550,663.73
TOTAL ALL BANKS		1,947,082.03

APPROVED PER CITY MANAGER

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CITY OF INDUSTRY
BANK OF AMERICA
December 8, 2016

Check	Date			Payee Name		Check Amount
CITYELEC.CHK - City Electric						
1397	11/29/2016		VOIDED- PAPER JAM			$0.00
1398	11/22/2016			CITY OF INDUSTRY		$310,639.31
	Invoice	Date	Description		Amount	
	11/22/16	11/22/2016	TRANSFER FUNDS-ELECTRIC		$310,639.31	
CITYGEN.CHK - City General						
24331	11/21/2016			CITY OF INDUSTRY		$85,778.99
	Invoice	Date	Description		Amount	
	11/21/16	11/21/2016	TRANSFER FUNDS-SAVINGS		$85,778.99	

Checks	Status	Count	Transaction Amount
	Total	**3**	**$396,418.30**

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
65233	11/16/2016			**HISTORICAL RESOURCES, INC.**	$69,141.62
	Invoice	Date	Description	Amount	
	10/27/16	10/27/2016	AGREEMENT REIMBURSEMENT-OCT 2016	$69,141.62	
65234	11/22/2016			**BANK OF AMERICA - VISA**	$473.75
	Invoice	Date	Description	Amount	
	2017-00000575	11/06/2016	10/07-11/06/16 CREDIT CARD EXPENSES-PHILIPS	$473.75	
65235	11/22/2016			**NOBLE AMERICAS ENERGY**	$118,731.76
	Invoice	Date	Description	Amount	
	163140006414578	11/09/2016	WHOLESALE GAS-OCT 2016	$16.52	
	163160006436801	11/11/2016	WHOLESALE USE-OCT 2016	$118,715.24	
65236	11/23/2016			**AT & T**	$9.07
	Invoice	Date	Description	Amount	
	2017-00000568	11/01/2016	11/01-11/30/16 SVC - CITY WHITE PAGES	$9.07	
65237	11/23/2016			**FRONTIER**	$767.49
	Invoice	Date	Description	Amount	
	2017-00000576	11/04/2016	11/04-12/03/16 SVC GS-21620 VALLEY	$53.66	
	2017-00000577	11/04/2016	11/04-12/03/16 SVC - EM-21858 GARCIA LN-ALARM	$61.98	
	2017-00000578	11/07/2016	11/07-12/06/16 SVC - GS-408 BREA CYN RD	$26.58	
	841 7TH-NOV16	11/10/2016	11/10-12/09/16 SVC - 841 S. SEVENTH	$97.20	
	2017-00000579	11/10/2016	11/10-12/09/16 SVC - EM-21508 BAKER PKWY BLDG	$50.97	
	2017-00000580	11/10/2016	11/10-12/09/16 SVC - EM-21808 GARCIA LN-ALARM	$61.98	
	2017-00000581	11/10/2016	11/10-12/09/16 SVC - 600 BREA CYN RD	$218.56	
	2017-00000582	11/10/2016	11/10-12/09/16 SVC - GENERATOR SITE-TELEMETRY	$145.59	
	2017-00000583	11/10/2016	11/10-12/09/16 SVC - GENERATOR SITE-TELEMETRY	$50.97	
65238	11/23/2016			**GAS COMPANY, THE**	$58.14
	Invoice	Date	Description	Amount	

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	2017-00000569	11/09/2016	10/01-11/01/16 SVC - 1 INDUSTRY HILLS PKWY UNIT	$58.14	
65239	11/23/2016			**SO CALIFORNIA EDISON COMPANY**	$852.75
	Invoice	Date	Description	Amount	
	2017-00000570	11/08/2016	10/05-11/04/16 SVC - VARIOUS SITES	$99.31	
	2017-00000571	11/09/2016	10/01-11/01/16 SVC - GALE AVE/L ST	$34.07	
	2017-00000572	11/10/2016	09/13-11/07/16 SVC - VALLEY BLVD U-VARIOUS SITES	$605.98	
	2017-00000573	11/10/2016	10/11-11/09/16 SVC - 575 BALDWIN PARK AVE U	$61.01	
	2017-00000574	11/12/2016	10/12-11/10/16 SVC - 490 7TH U	$52.38	
65240	11/23/2016			**VERIZON BUSINESS**	$162.07
	Invoice	Date	Description	Amount	
	61262630	11/10/2016	10/01-10/31/16 SVC - VARIOUS SITES & HATCHER	$36.57	
	61262631	11/10/2016	10/01-10/31/16 SVC - VARIOUS SITES	$125.50	
65241	11/23/2016			**WALNUT VALLEY WATER DISTRICT**	$9,814.98
	Invoice	Date	Description	Amount	
	2464213	11/07/2016	10/01-10/31/16 SVC - IRR 820 FAIRWAY DR	$118.11	
	2464265	11/07/2016	10/01-10/31/16 SVC - LEMON AVE N OF CURRIER RD	$74.30	
	2464299	11/07/2016	10/01-10/31/16 SVC - BREA CYN RD & OLD RANCH RD	$41.70	
	2464315	11/07/2016	10/01-10/31/16 SVC - FERRERO & GRAND EAST	$732.62	
	2464332	11/07/2016	10/01-10/31/16 SVC - BAKER PKWY METER #1	$834.26	
	2464333	11/07/2016	10/01-10/31/16 SVC - BAKER PKWY METER #2	$732.81	
	2464339	11/07/2016	10/01-10/31/16 SVC - GRAND AVE CROSSING	$73.34	
	2464340	11/07/2016	10/01-10/31/16 SVC - GRAND AVE CROSSING	$73.34	
	2464342	11/07/2016	10/01-10/31/16 SVC - 22002 VALLEY BLVD	$366.07	
	2464359	11/07/2016	10/01-10/31/16 SVC - 21350 VALLEY-MEDIAN	$87.34	
	2464360	11/07/2016	10/01-10/31/16 SVC - GRAND CROSSING EAST	$41.70	
	2464361	11/07/2016	10/01-10/31/16 SVC - GRAND CROSSING WEST	$62.89	
	2464362	11/07/2016	10/01-10/31/16 SVC - BAKER PKWY & GRAND N/W	$1,545.99	
	2464369	11/07/2016	10/01-10/31/16 SVC - E/S GRAND S/O BAKER PKWY	$162.12	

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date		Payee Name		Check Amount
CITY.WF.CHK - City General Wells Fargo					
	2464375	11/07/2016	10/01-10/31/16 SVC - BREA CYN N OF RR TRKS	$186.76	
	2464376	11/07/2016	10/01-10/31/16 SVC - BREA CYN N OF CURRIER	$35.17	
	2464378	11/07/2016	10/01-10/31/16 SVC - 60 FWY INTERCHANGE	$18.87	
	2464396	11/07/2016	10/01-10/31/16 SVC - END OF BAKER PKWY-TEMP	$4,423.73	
	2465046	11/08/2016	09/30-10/31/16 SVC - PUMP STN N/W CHERYL	$23.77	
	2465066	11/08/2016	09/30-10/31/16 SVC - PUMP STN BREA CYN	$22.08	
	19835WAL-2465203	11/08/2016	09/30-10/31/16 SVC - 19835 WALNUT DR	$101.84	
	2465292	11/08/2016	09/30-10/31/16 SVC - NOGALES PUMP STN	$56.17	
65242	11/29/2016		**GOMES, SUSIE**		$431.99
	Invoice	Date	Description	Amount	
	11/28/16	11/28/2016	REIMBURSEMENT FOR XMAS DECORATIONS	$431.99	
65243	11/29/2016		**CITY OF CHINO HILL UTILITY**		$242.22
	Invoice	Date	Description	Amount	
	2017-00000584	11/16/2016	10/17-11/14/16 SVC - 1550 RANCHO HILLS DR	$242.22	
65244	11/29/2016		**FRONTIER**		$282.80
	Invoice	Date	Description	Amount	
	2017-00000599	11/16/2016	11/16-12/15/16 SVC - GENERATOR SITE-TELEMETRY	$48.36	
	2017-00000600	11/16/2016	11/16-12/15/16 SVC - PUENTE HILLS AUTO PLAZA	$163.39	
	2017-00000601	11/16/2016	11/16-12/15/16 SVC - BREA CYN PUMP STN	$71.05	
65245	11/29/2016		**GAS COMPANY, THE**		$15.78
	Invoice	Date	Description	Amount	
	2017-00000585	11/16/2016	10/13-11/14/16 SVC - 610 S BREA CYN RD	$15.78	
65246	11/29/2016		**INDUSTRY PUBLIC UTILITY**		$24.35
	Invoice	Date	Description	Amount	
	2017-00000586	11/18/2016	10/10-11/10/16 SVC - 370 GRAND AVE SOUTH	$24.35	

CITY OF INDUSTRY
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December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
65247	11/29/2016			**SAN GABRIEL VALLEY WATER CO.**	$451.94
	Invoice	Date	Description	Amount	
	2017-00000587	11/16/2016	10/18-11/15/16 SVC - 14329 VALLEY	$206.31	
	2017-00000588	11/17/2016	10/19-11/16/16 SVC - 336 EL ENCANTO	$107.12	
	841 7TH-NOV16	11/18/2016	10/20-11/17/16 SVC - 841 S SEVENTH	$138.51	
65248	11/29/2016			**SO CALIFORNIA EDISON COMPANY**	$54,554.31
	Invoice	Date	Description	Amount	
	19835WAL-NOV16	11/15/2016	10/13-11/14/16 SVC - 19835 E WALNUT DR	$86.53	
	2017-00000589	11/17/2016	10/17-11/16/16 SVC - 1341 FULLERTON RD	$24.05	
	2017-00000590	11/17/2016	10/17-11/16/16 SVC - 17635 GALE	$1,423.60	
	2017-00000591	11/18/2016	10/17-11/16/16 SVC - VARIOUS SITES	$83.15	
	2017-00000592	11/18/2016	10/17-11/16/16 SVC - VARIOUS SITES	$1,544.56	
	2017-00000593	11/18/2016	10/17-11/16/16 SVC - PECK RD S/O PELLISSIER	$35.29	
	841 7TH-NOV16	11/18/2016	10/17-11/16/16 SVC - 841 7TH	$681.02	
	2017-00000594	11/18/2016	10/01-11/01/16 SVC - VARIOUS SITES	$3,847.69	
	2017-00000595	11/18/2016	10/17-11/16/16 SVC - VARIOUS SITES	$5,055.93	
	2017-00000596	11/18/2016	05/16/15-11/01/16 SVC - VARIOUS SITES	$36,100.36	
	2017-00000597	11/18/2016	10/17-11/16/16 SVC - VARIOUS SITES	$2,904.04	
	2017-00000598	11/18/2016	09/27-11/16/16 SVC - VARIOUS SITES	$2,768.09	
65249	11/30/2016			**HUMANA INSURANCE COMPANY**	$4,685.78
	Invoice	Date	Description	Amount	
	389690324	11/13/2016	DENTAL PREMIUM-DEC 2016	$4,685.78	
65250	11/30/2016			**MUTUAL OF OMAHA**	$5,634.82
	Invoice	Date	Description	Amount	
	593249636	12/01/2016	LIFE INSURANCE PREMIUM-DEC 2016	$5,634.82	
65251	11/30/2016			**UNUM LIFE INSURANCE COMPANY**	$5,217.20
	Invoice	Date	Description	Amount	

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	12/1-12/31/16	11/18/2016	LONG TERM CARE PREMIUM-DEC 2016	$5,217.20	
65252	11/30/2016			**UNUM LIFE INSURANCE COMPANY**	$1,026.00
	Invoice	Date	Description	Amount	
	BL0464959	11/17/2016	LONG TERM CARE-SPOUSE 12/01/16-02/28/17	$1,026.00	
65253	12/08/2016			**ARAMARK REFRESHMENT SERVICE,**	$165.33
	Invoice	Date	Description	Amount	
	8709057	11/22/2016	COFFEE/OFFICE SUPPLIES	$20.79	
	8709107	11/22/2016	COFFEE/OFFICE SUPPLIES	$22.00	
	8709625	11/22/2016	COFFEE/OFFICE SUPPLIES	$122.54	
65254	12/08/2016			**AVANT-GARDE, INC**	$760.00
	Invoice	Date	Description	Amount	
	4154	11/10/2016	PROJECT MGMT-CITY BRIDGES	$760.00	
65255	12/08/2016			**BLAKE AIR CONDITIONING**	$178.60
	Invoice	Date	Description	Amount	
	42740	11/14/2016	A/C MAINT-CITY HALL	$178.60	
65256	12/08/2016			**BOUZA LAW FIRM**	$16,630.25
	Invoice	Date	Description	Amount	
	547	10/31/2016	LEGAL SVC-OCT 2016	$16,630.25	
65257	12/08/2016			**BRYAN PRESS**	$234.36
	Invoice	Date	Description	Amount	
	0076068	11/04/2016	LETTERHEAD-IDA	$190.21	
	0076076	11/04/2016	BUSINESS CARDS-M. HEAVISIDE	$44.15	
65258	12/08/2016			**CAMERA SECURITY SYSTEMS, INC.**	$801.01
	Invoice	Date	Description	Amount	

CITY OF INDUSTRY
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Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	33514	11/13/2016	COAX CABLE-BILL'S OFFICE	$801.01	
65259	12/08/2016			**CASSO & SPARKS, LLP**	$173,544.79
	Invoice	Date	Description	Amount	
	20182	12/22/2016	COI-LEGAL SVC FOR JUN 2016	$85,923.70	
	20185	11/29/2016	COI-LEGAL SVC FOR JUL 2016	$87,621.09	
65260	12/08/2016			**CHEM PRO LABORATORY, INC**	$269.00
	Invoice	Date	Description	Amount	
	610632	10/23/2016	WATER TREATMENT-OCT 2016	$269.00	
65261	12/08/2016			**CITY OF INDUSTRY**	$1,268.88
	Invoice	Date	Description	Amount	
	2017-00000029	10/31/2016	IH FUEL PUMP-CITY HALL VEHICLES	$336.16	
	2017-00000027	10/31/2016	IH FUEL PUMP-SECURITY VEHICLES	$932.72	
65262	12/08/2016			**CITY OF INDUSTRY-PAYROLL ACCT**	$150,000.00
	Invoice	Date	Description	Amount	
	P/R 11/30/16	11/28/2016	REIMBURSE FOR PAYROLL 11/30/16	$150,000.00	
65263	12/08/2016			**CITY OF SOUTH EL MONTE**	$4,000.00
	Invoice	Date	Description	Amount	
	1082	10/18/2016	COALITION SR60 PROJ-OCT 2016	$2,000.00	
	1083	11/15/2016	COALITION SR60 PROJ-NOV 2016	$2,000.00	
65264	12/08/2016			**CNC ENGINEERING**	$192,509.76
	Invoice	Date	Description	Amount	
	45585	11/23/2016	WALNUT DR SOUTH WIDENING	$1,164.03	
	45586	11/23/2016	VALLEY BLVD RECONSTRUCTION	$17,863.07	
	45587	11/23/2016	CLARK AVE WIDENING	$1,687.67	
	45588	11/23/2016	2016 CLEANOUT STORMWATER DEVICES	$402.81	

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date	Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo			
45589	11/23/2016	GENERAL ENGINEERING SVC-CIP	$36,781.74
45590	11/23/2016	GENERAL ENGINEEERING SVC-MAINT OF CITY	$37,740.55
45591	11/23/2016	TONNER CYN PROPERTY	$8,320.00
45592	11/23/2016	COLIMA RD WIDENING	$335.68
45593	11/23/2016	PUENTE VALLEY OPERABLE UNIT PROJECT	$2,007.84
45594	11/23/2016	SEWER SYSTEM MAINT-EXPO CENTER	$2,001.66
45595	11/23/2016	PAINT EVALUATION OF GRAND ARENA	$172.47
45596	11/23/2016	CITY ELECTRICAL FACILITES	$623.83
45597	11/23/2016	PUENTE BASIN WATER MASTER ISSUES	$437.65
45598	11/23/2016	SAFETY UPGRADE AT VARIOUS RR CROSSINGS	$332.58
45599	11/23/2016	TRAFFIC SIGNAL AT DON JULIAN/SIXTH AVE	$689.88
45600	11/23/2016	SANITATION DISTRICT INTERMODAL FACILITY	$172.47
45601	11/23/2016	SAN JOSE AVE RECONSTRUCTION	$10,909.00
45602	11/23/2016	PAINT EVALUATION OF FENCE ALONG TEMPLE	$8,910.42
45603	11/23/2016	HIGHWAY BRIDGE PROGRAM-AZUSA AVE	$1,597.19
45604	11/23/2016	FISCAL YEAR BUDGET	$9,830.51
45605	11/23/2016	FOLLOW'S CAMP PROPERTY	$172.47
45606	11/23/2016	VARIUOUS ASSIGNMENTS-SA TO IUDA	$5,594.62
45607	11/23/2016	NEW CUL-DE-SAC EAST OF FAURE AVE	$5,934.59
45608	11/23/2016	NELSON AVE/PUENTE AVE INTERSECTION	$1,083.98
45609	11/23/2016	ARENTH AVE RECONSTRUCTION	$2,650.01
45610	11/23/2016	USGR STORMWATER PROJECT	$1,579.76
45611	11/23/2016	RESURFACING OF UNRUH AVE	$3,170.19
45612	11/23/2016	CARTEGRAPH IMPLEMENT/MGMT	$1,118.27
45613	11/23/2016	CITYWIDE CATCH BASIN RETROFIT	$3,232.31
45614	11/23/2016	SEWER ATLAS FOR COI	$318.83
45616	11/23/2016	REQUEST FOR QUALIFICATIONS FOR PROF SVC	$516.82
45617	11/23/2016	FULLERTON RD GRADE SEPARATION	$10,743.75
45618	11/23/2016	FAIRWAY DR GRADE SEPARATION	$5,071.85
45619	11/23/2016	NOGALES GRADE SEPARATION	$1,172.19
45615	11/23/2016	COI PAVEMENT MGMT SYSTEM	$926.96

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	45584	11/23/2016	INDUSTRY 66KV ELEC FACILITY	$2,242.11	
	122016	12/01/2016	MEALS/WHEELS RENT-DEC 2016	$5,000.00	
65265	12/08/2016			**COUNTY OF LA DEPT OF PUBLIC**	$32,157.55
	Invoice	Date	Description	Amount	
	PW-16111004469	11/10/2016	TRAFFIC SIGNAL MAINT	$10,907.98	
	PW-16111004265	11/10/2016	PUMP HOUSE MAINT	$9,757.30	
	PW-16111004261	11/10/2016	STREET MAINT/INSPECTION	$4,594.87	
	PW-16111004264	11/10/2016	TRAFFIC ENGINEERING ADVISORY	$244.49	
	PW-16111004258	11/10/2016	LITTER/DEBRIS REMOVAL	$281.76	
	PW-16111004232	11/10/2016	FAIRWAY DR GRADE SEPARATION	$318.18	
	PW-16111004260	11/10/2016	PAVEMENT PATCHING	$1,270.25	
	PW-16111004262	11/10/2016	EMERGENCY ROAD SERVICES	$1,248.88	
	PW-16111004259	11/10/2016	STORM DRAIN MAINT	$3,533.84	
65266	12/08/2016			**DEPT OF ANIMAL CARE & CONTROL**	$3,851.04
	Invoice	Date	Description	Amount	
	11/15/16	11/15/2016	SHELTER COST-OCT 2016	$3,851.04	
65267	12/08/2016			**EASYLINK SERVICES**	$56.35
	Invoice	Date	Description	Amount	
	07634191611	11/02/2016	TAX SVC-OCT 2016	$56.35	
65268	12/08/2016			**ELECTRA-MEDIA, INC**	$1,763.00
	Invoice	Date	Description	Amount	
	5278	11/15/2016	PUENTE HILLS AUTO DISPLAY-DEC 2016	$1,763.00	
65269	12/08/2016			**ENCO UTILITY SERVICES**	$5,346.00
	Invoice	Date	Description	Amount	
	20-3-03-23	11/05/2016	CUSTOMER ACCOUNT SERVICES	$2,500.00	
	0612-000403S	11/05/2016	METER SYSTEM MONITORING-METRO SOLAR	$2,846.00	

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
65270	12/08/2016			ENVIRONMENTAL SYSTEMS	$2,226.36
	Invoice	Date	Description	Amount	
	93210743	11/17/2016	SUBSCRIPTION FOR WEBSITE-MAPS	$2,226.36	
65271	12/08/2016			FEDERAL EXPRESS CORP.	$768.73
	Invoice	Date	Description	Amount	
	5-607-98495	11/11/2016	MESSENGER SVC	$768.73	
65272	12/08/2016			FRAZER, LLP	$45,603.25
	Invoice	Date	Description	Amount	
	145888	10/31/2016	COI-PROF SVC FOR OCT 2016	$18,428.25	
	146178	11/15/2016	COI-ACCTG SVC 11/01-11/15/16	$27,175.00	
65273	12/08/2016			FUEL PROS, INC.	$2,101.00
	Invoice	Date	Description	Amount	
	0000027331	11/08/2016	INDUSTRY HILLS-PERMIT FEE AND HANDLING	$1,951.00	
	0000027343	10/28/2016	INDUSTRY HILLS FUEL STN MAINT	$150.00	
65274	12/08/2016			G S AND W PRINTING & MAILING,	$492.04
	Invoice	Date	Description	Amount	
	49074	01/10/1974	HOLIDAY SEASON MAILER-HOMESTEAD	$492.04	
65275	12/08/2016			GILBARCO, INC.	$788.07
	Invoice	Date	Description	Amount	
	05831032	11/04/2016	INDUSTRY HILLS FUEL STN MAINT	$788.07	
65276	12/08/2016			GONSALVES & SON, JOE A.	$5,000.00
	Invoice	Date	Description	Amount	
	155280	11/14/2016	LEGISLATIVE SVC-DEC 2016	$5,000.00	

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
65277	12/08/2016			**HISTORICAL RESOURCES, INC.**	$62,619.40
	Invoice	Date	Description	Amount	
	11/23/16	11/23/2016	AGREEMENT REIMBURSEMENT-NOV 2016	$62,619.40	
65278	12/08/2016			**HOME DEPOT CREDIT SERVICE**	$6,764.86
	Invoice	Date	Description	Amount	
	4311229	11/10/2016	MISC SUPPLIES-CITY HALL	$6.52	
	7311871	11/17/2016	MISC SUPPLIES-CITY HALL	$4.32	
	8064612	11/16/2016	MISC SUPPLIES-CITY HALL	$125.20	
	9312224	10/26/2016	MISC SUPPLIES-CITY HALL	$20.54	
	0052138	10/25/2016	MISC SUPPLIES-CITY HALL	$65.33	
	4311760	10/21/2016	MISC SUPPLIES-CITY HALL	$132.46	
	0972319	11/04/2016	CARPET INSTALL FOR CITY HALL GYM	$1,078.21	
	3972160	11/01/2016	CARPET FOR CITY HALL GYM	$5,332.28	
65279	12/08/2016			**INDUSTRY MANUFACTURERS**	$80,555.97
	Invoice	Date	Description	Amount	
	OCTOBER 2016	11/17/2016	EXPENSE REIMBURSEMENT FOR OCT 2016	$80,555.97	
65280	12/08/2016			**INDUSTRY SECURITY SERVICES**	$42,020.35
	Invoice	Date	Description	Amount	
	14-19286	11/11/2016	SECURITY SVC-TRES HERMANOS	$2,187.12	
	14-19206	11/04/2016	SECURITY SVC AND VEHICLE FUEL FOR TRES	$2,811.51	
	14-19275	11/11/2016	SECURITY SVC 11/04-11/10/16	$16,933.36	
	14-19309	11/18/2016	SECURITY SVC 11/11-11/17/16	$17,732.92	
	14-19320	11/18/2016	SECURITY SVC-TRES HERMANOS	$2,355.44	
65281	12/08/2016			**JANUS PEST MANAGEMENT**	$580.00
	Invoice	Date	Description	Amount	
	182236	11/01/2016	PEST SVC-HOMESTEAD	$580.00	

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
65282	12/08/2016			KIMLEY-HORN & ASSOCIATES, INC.	$12,215.57
	Invoice	Date	Description	Amount	
	8331343R2	08/31/2016	TRAFFIC SURVEY-VARIOUS SITES	$12,215.57	
65283	12/08/2016			KLINE'S PLUMBING, INC.	$915.00
	Invoice	Date	Description	Amount	
	10190	11/17/2016	EMERGENCY REPAIR-CITY HALL	$390.00	
	10189	11/17/2016	EMERGENCY REPAIR-205 HUDSON AVE	$525.00	
65284	12/08/2016			L A COUNTY SHERIFF'S	$23,471.52
	Invoice	Date	Description	Amount	
	171611NH	11/17/2016	SPECIAL EVENT-DIRECTED PATROL	$23,471.52	
65285	12/08/2016			LOCKS PLUS	$998.93
	Invoice	Date	Description	Amount	
	33238	11/09/2016	RE-KEY OFFICE ON SECOND FLOOR-CITY HALL	$998.93	
65286	12/08/2016			METHOD TECHNOLOGIES	$28.75
	Invoice	Date	Description	Amount	
	34905	11/09/2016	UPDATE CITY WEBSITE	$28.75	
65287	12/08/2016			MICHAEL BAKER INTERNATIONAL,	$43,452.37
	Invoice	Date	Description	Amount	
	959727	11/10/2016	PLANNING SUPPORT SVC-OCT 2016	$43,452.37	
65288	12/08/2016			MR PLANT & INTERIOR BOTANICAL	$702.00
	Invoice	Date	Description	Amount	
	DEC 5187	12/01/2016	PLANT MAINT-DEC 2016	$114.00	
	DEC 5188	12/01/2016	PLANT MAINT-DEC 2016	$588.00	
65289	12/08/2016			OLMOS PROFESSIONAL SERVICES	$8,782.00

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	Invoice	Date	Description	Amount	
	231	11/30/2016	JANITORIAL SVC- IPUC BLDG	$1,815.00	
	230	11/30/2016	JANITORIAL SVC- CITY HALL	$5,500.00	
	229	11/30/2016	JANITORIAL SVC- IMC	$1,467.00	
65290	12/08/2016			**PAETEC COMMUNICATIONS**	$784.62
	Invoice	Date	Description	Amount	
	68630078	11/10/2016	CITY HALL PHONE SVC-NOV 2016	$784.62	
65291	12/08/2016			**PLACEWORKS**	$750.00
	Invoice	Date	Description	Amount	
	60756	10/31/2016	STAFF SERVICES	$750.00	
65292	12/08/2016			**R.F. DICKSON CO., INC.**	$17,131.51
	Invoice	Date	Description	Amount	
	2508227	10/31/2016	STREET AND PARKING LOT SWEEPING	$17,131.51	
65293	12/08/2016			**RICOH USA, INC.**	$2,505.02
	Invoice	Date	Description	Amount	
	5045556999	11/13/2016	METER READING-HR COPIER	$87.63	
	5045616607	11/16/2016	METER READING-VARIOUS COPIERS	$2,129.35	
	22108899	11/11/2016	METER READING-FINANCE COPIER	$288.04	
65294	12/08/2016			**RICOH USA, INC.**	$3,448.87
	Invoice	Date	Description	Amount	
	52350629	11/12/2016	COPIER LEASE-HR	$282.73	
	52350337	11/12/2016	COPIER LEASE-DEC 2016	$3,166.14	
65295	12/08/2016			**SAGE ENVIRONMENTAL GROUP**	$10,344.00
	Invoice	Date	Description	Amount	
	577	11/14/2016	BIOLOGICAL SVC-FOLLOW'S CAMP	$10,344.00	

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
65296	12/08/2016			**SAN GABRIEL VALLEY NEWSPAPER**	$2,418.08
	Invoice	Date	Description	Amount	
	0010852480	10/07/2016	NOTICE OF PUBLIC HEARING	$650.32	
	0010859998	10/28/2016	NOTICE OF PUBLIC HEARI NG	$457.12	
	0010852467	10/07/2016	NOTICE OF INTENT-PLAN 16-1	$484.72	
	0010859994	10/28/2016	NOTICE OF PUBLIC HEARI NG	$335.68	
	0010859999	10/28/2016	NOTICE OF PUBLIC HEARI NG	$490.24	
65297	12/08/2016			**SATSUMA LANDSCAPE & MAINT.**	$122,747.71
	Invoice	Date	Description	Amount	
	1116XROADS	11/29/2016	LANDSCAPE SVC-CROSSROADS PKY NORTH AND	$21,409.68	
	1116EC	11/29/2016	LANDSCAPE SVC-EXPO CENTER	$16,496.77	
	1116CH-1	11/29/2016	LANDSCAPE SVC-VARIOUS AGENCY SITES	$22,804.64	
	1116CH	11/29/2016	LANDSCAPE SVC-CIVIC FINANCIAL CENTER	$25,936.55	
	1116TA	11/29/2016	LANDSCAPE SVC-TEMPLE AND AZUSA	$36,100.07	
65298	12/08/2016			**SCS FIELD SERVICES**	$14,244.00
	Invoice	Date	Description	Amount	
	0289080	10/31/2016	INDUSTRY HILLS-MAINT LANDFILL GAS SYSTEM	$14,244.00	
65299	12/08/2016			**SO CAL INDUSTRIES**	$268.70
	Invoice	Date	Description	Amount	
	248652	11/07/2016	FENCE RENTAL-INDUSTRY HILLS	$89.93	
	250018	11/16/2016	RR RENTAL-TONNER CYN/57 FWY	$84.90	
	249329	11/11/2016	RR RENTAL-TONNER CYN/GRAND AVE	$93.87	
65300	12/08/2016			**SQUARE ROOT GOLF &**	$168,150.53
	Invoice	Date	Description	Amount	
	1255ELHM	11/28/2016	LANDSCAPE SVC-EL ENCANTO	$6,484.00	
	1256ELHM	11/28/2016	LANDSCAPE SVC-VARIOUS CITY SITES	$8,761.54	

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	1257ELHM	11/28/2016	LANDSCAPE SVC-HOMESTEAD	$16,871.62	
	1258H	11/28/2016	LANDSCAPE SVC-VARIOUS CITY SITES	$136,033.37	
65301	12/08/2016			**STAPLES BUSINESS ADVANTAGE**	$1,065.20
	Invoice	Date	Description	Amount	
	8041756547	11/05/2016	OFFICE SUPPLIES	$700.82	
	8041851255	11/12/2016	OFFICE SUPPLIES	$364.38	
65302	12/08/2016			**STATE BOARD OF EQUALIZATION**	$158.25
	Invoice	Date	Description	Amount	
	0002 5473 374	11/08/2016	WATER RIGHTS FEE-TRES HERMANOS	$158.25	
65303	12/08/2016			**STATE COMPENSATION INS. FUND**	$5,131.33
	Invoice	Date	Description	Amount	
	DECEMBER 2016	12/01/2016	PREMIUM FOR 12/1/16-1/01/17	$5,131.33	
65304	12/08/2016			**TRUELOCK, MIKE**	$800.00
	Invoice	Date	Description	Amount	
	PPMT1	11/21/2016	SPECIAL EVENTS-HOMESTEAD	$800.00	
65305	12/08/2016			**U.S. POSTAL SERVICE**	$4,500.00
	Invoice	Date	Description	Amount	
	11/23/16	11/23/2016	POSTAGE FOR BULK MAILING-PERMIT #4237	$4,500.00	
65306	12/08/2016			**UNDERGROUND SERVICE ALERT OF**	$15.00
	Invoice	Date	Description	Amount	
	1020160157	11/01/2016	DIG ALERTS	$15.00	

CITY OF INDUSTRY
WELLS FARGO BANK
December 8, 2016

Check	Date	Payee Name	Check Amount

CITY.WF.CHK - City General Wells Fargo

Checks	Status	Count	Transaction Amount
	Total	74	$1,550,663.73

CITY COUNCIL

ITEM NO. 5.2

CITY OF INDUSTRY

Incorporated June 18, 1957

Dec. 1. 2016

Mayor & City Council

Attached please find Proposition "A" Fund Assignment Agreement with the City of La Verne for approval of the exchange of funds.

Sincerely.

Phyllis Tucker.
City Treasurer

P.O. Box 3366, City of Industry, California 91744-0366 • Administrative Offices: 15625 E. Stafford St. • (626) 333-2211 • Fax (626) 961-6795

PROPOSITION A ASSIGNMENT AGREEMENT

This Proposition A Assignment Agreement ("Agreement") is made and entered into this 7th day of November 2016, by and between the City of La Verne and the City of Industry, with respect to the following facts:

A. The City of Industry will be constructing capital improvements which have been approved by the Los Angeles Metropolitan Transportation Authority (Metro) for the use of Proposition A Local Return monies. On June 13, 2013, Metro approved the use of $3,500,000 for the Fullerton Road Grade Separation at Gale Avenue. Given the limited amount of Industry's Local Return allocation, Industry desires to use a portion of La Verne's uncommitted Prop A allocation for the above projects and any other Metro approved projects.

B. The City of La Verne has uncommitted Proposition A Local Return funds which could be made available to the City of Industry to assist in providing the project described in Paragraph A of this Agreement. In exchange for the assignment by the City of Industry of the amount of its general funds indicated in Section 1 below, the City of La Verne is willing to assign uncommitted Proposition A Local Return funds to the City of Industry for the purpose identified in Paragraph A.

Now, therefore, in consideration of the mutual benefits to be derived by the parties and of the promises herein contained, it is mutually agreed as follows:

1. Exchange. The City of La Verne agrees to assign $280,000 of its Fiscal Year 2016-17 Proposition A Local Return Funding authority to the City of Industry. In return, the City of Industry agrees to assign $201,600 in general funds to the City of La Verne for an average rate of $.72 in City of Industry General Funds for each $1.00 of City of La Verne Proposition A Funds.

2. Consideration. The City of La Verne shall assign the agreed upon Proposition A Local Return funds to the City of Industry in one lump sum payment. The City of Industry shall assign the agreed upon general funds to the City of La Verne in one lump sum payment. The lump sum payments shall be due and payable within ten (10) days of execution of this agreement by both parties. The Los Angeles County Metropolitan Transportation Authority (LACMTA) has already approved the project described in Paragraph A.

3. Term. This Agreement is effective on the date above written and for such time as is necessary for both parties to complete their mutual obligations under this Agreement.

4. Termination. Termination of this Agreement may be made by either party, so long as written notice of intent to terminate is given to the other party at least five (5) days prior to the termination.

5. Notices. Notices shall be given pursuant to this Agreement by personal service on the party to be notified, or by written notice upon such party deposited in the custody of the United States Postal Service addressed as follows:

a. City Clerk
City of La Verne
3660 "D" Street
La Verne, CA 91750

b. City Clerk
City of Industry
15625 East Stafford
City of Industry, CA 91744-0366
Fax: (626) 961-6795

6. Assurances.

a. The City of Industry shall use the assigned Proposition A Local Return funds only for the purpose of providing the project discussed in Paragraph A of this Agreement or any other Metro approved project, and within the time limits and eligibility requirements specified in LACMTA's Proposition A Local Return Program Guidelines.

b. The City of La Verne is providing Proposition A Local Return funding only and does not assume any responsibility or obligation for the project described in Paragraph A or any other project undertaken by the City of Industry.

IN WITNESS WHEREOF, the parties hereto have caused this Assignment Agreement to be executed by their respective officers, duly authorized, on the day and year written above.

CITY OF INDUSTRY

By:_____
Mark Radecki, Mayor

Attest:

_____
Diane Schlichting, Deputy City Clerk

Approved as to Form:

_____
James M. Casso, City Attorney

CITY OF LA VERNE

By: Don Kendrick
Don Kendrick, Mayor

Lupe Estrella
Lupe Estrella, Assistant City Clerk

Approved as to Form:

Robert Kress, City Attorney

CITY COUNCIL

ITEM NO. 5.3

CITY OF INDUSTRY
Incorporated June 18, 1957

MEMORANDUM

TO: Honorable Mayor Radecki and Members of the City Council

FROM: Paul J. Philips, City Manager

DATE: December 8, 2016

SUBJECT: Request to Consider Closing City Hall During the time Between the Christmas and New Year Holiday.

This request is not unusual to Cities and government agencies as many Cities and government agencies slow down operations during the holiday season.

Currently, our internal rules and regulations provide that if a holiday falls on a Saturday or Sunday the previous or following business day will be observed as the holiday, a practice typical in most cities.

If approved our calendar will be as follows:

City Hall will be open Monday, December 19 thru Friday December 23, 2016. The Christmas Day holiday will be observed on Monday December 26th because this year Christmas falls on a Sunday. Accordingly, City Hall would be closed December 27th through December 30th and open for business on Tuesday, January 3, 2017 (a four day City Hall closure).

IT IS RECOMMENDED that the City Council approve the four day holiday closure for the calendar year 2016. All emergency and emergency response programs wil remain in place. See attached calendar.

P.O. Box 3366, City of Industry, California 91744-0366 • Administrative Offices: 15625 E. Stafford St. • (626) 333-2211 • Fax (626) 961-6795

2016 Holiday Calendar

CITY HALL OPEN

Monday, December 19
Tuesday, December 20
Wednesday, December 21
Thursday, December 22
Friday, December 23

CITY HALL CLOSED

Saturday, December 24
Sunday, December 25
Monday, December 26 (Holiday observance)
Tuesday, December 27
Wednesday, December 28
Thursday, December 29
Friday, December 30
Saturday, December 31
Sunday, January 1, 2017
Monday, January 2, 2017 (Holiday observance)

City Hall open going forward Tuesday, January 3, 2017

CITY COUNCIL

ITEM NO. 6.1

CITY OF INDUSTRY
Incorporated June 18, 1957

MEMORANDUM

TO: Paul J. Philips, City Manager

FROM: Ben Wong, Industry Manufacturers Council (IMC) Executive Director

DATE: November 29, 2016

SUBJECT: Report and Update on IMC Organizational Refocusing, Restructuring and Rebranding

Background:

In a series of meetings beginning in the first quarter of this year, the IMC Board of Directors and staff met with the Dolphin Group, a strategic public affairs and communications firm, to discuss our organization's mission and vision for moving the IMC forward in the coming years.

Out of those discussions have come:

- A revised mission statement:
  - "To encourage and promote a business-friendly community for the purpose of advancing economic development."
- Proposed organizational goals:
  - Advocacy
    - Board members were vocal regarding greater engagement on issues affecting the local business community. The proposed development of a new Advocacy Committee would facilitate the organization's increased focus in this area.
    - Because the IMC's current organization form under the IRS tax code as a charitable 501(c)(3) tax-exempt entity limits the amount of advocacy activity, we will be transitioning to a 501(c)(6) organization, more typical of chambers of commerce. Once IMC is operating as a 501(c)(6) organization, a decision will be made regarding the current 501(c)(3) structure.
  - Promotion and communications
    - Proposed renaming/rebranding of the organization: As manufacturing has become a less significant portion of the business community in the City of Industry, the name "Industry

Manufacturers Council" is a bit of a misnomer. Although a final determination has yet to be made, "Industry Business Council" and other variations been discussed with the Board, including possibly adding "Chamber of Commerce" or "Area Chamber of Commerce" into the name.

        - Transitioning the directory and monthly newsletter to electronic format to reduce costs and improve distribution. Additionally, website improvements and greater use of social media platforms would promote greater awareness of the organization's services, programs and signature events.
    - Member development and resources
        - Looking to increase the value of business membership investment dollars through new and improved programming.
        - Revising the dues structure to provide stronger alignment with new tiered levels of membership benefit, as well as offering sponsorship opportunities.
- Staff has developed a set of guiding principles to lead the organization through the coming changes.
    - To achieve greater financial self-sufficiency, IMC is implementing improvements to payment processing, restructuring membership benefits and dues, looking for new revenue generation opportunities, reducing expenditures in marketing, event catering costs, as well as reevaluating IMC's policy on complimentary guests at luncheons and signature events.
    - Transparency in the IMC's relationship with the City is vital to maintaining and building upon the strong partnership between our two organizations. Quarterly updates will be provided to the City to ensure continued alignment with our mutual economic development objectives. And while changes in our relationship are inevitable, IMC is committed to continuing to provide strong support for the City goals.

IT IS RECOMMENDED that the City Council receive and file this report.

CITY COUNCIL

ITEM NO. 6.2

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

TO: Honorable Mayor and Council Members

FROM: Paul J. Philips, City Manager

STAFF: Susan Paragas, Director of Finance

DATE: December 8, 2016

SUBJECT: Resolution No. CC 2016-80 of the City of Industry, California, Authorizing and Directing the Execution and Delivery of an Amendment No. 1 of Agreement for State Administration of Local Sales and Use Taxes; and Authorizing Necessary Actions in Connection Therewith

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BACKGROUND:

On September 26, 2000, the City of Industry's voters authorized the issuance of sales tax revenue bonds in the aggregate principal amount of $500,000,000. The City has exhausted its full $500 million authorization and currently has 3 outstanding issuances of sales tax revenue bonds: the 2010 Sales Tax Revenue Bonds (2010 Bonds), the 2015A Sales Tax Revenue Refunding Bonds (2015A Bonds), and the 2015B Subordinate Sales Tax Revenue Bonds (2015B Bonds) (or 2015A/B Bonds). The City pledged its sales tax revenues to be used as security for debt service payments to these bonds.

Currently, sales tax receipts flow from the California State Board of Equalization (SBOE) to the City, which the City then transfers to U.S. Bank (Bond Trustee of the 2010, 2015A/B Bonds), which then makes principal and interest payments to bondholders when due.

DISCUSSION:

To enhance the flow of the funds to U.S. Bank and the bondholders, the City's Staff and Municipal Advisor recommend that the City implements a direct transfer of Sales Tax

Revenues by amending the Sales Tax Agreement through the execution and delivery of an Amendment No. 1 of Agreement for State Administration of Local Sales and Use Taxes to be entered into by the City and the SBOE (the "Amendment"). Resolution Number CC 2016-80 and the attached Amendment will change the flow of funds such that sales tax revenues will be transferred directly from SBOE to U.S. Bank, thus bypassing the City in the custody of these funds prior to bondholders being paid. Once bondholders are paid on July 1st and August 1st, and all deposits for 100% of amounts due on January 1st and February 1st are made and confirmed by U.S. Bank, then all excess sales tax revenues will be disbursed to the City on August 2nd.

This change to the flow of funds comes with no detrimental effects insofar as that the City, through the bond indenture's terms, is not entitled to the net cash available unless and until the bond holders have their next full year's payments fully sequestered in trustee accounts. Moreover, by changing the flow of funds as noted above, the City will eliminate some staff time and expense, and expedite the moneys arriving into the appropriate U.S. Bank bond related accounts on average of one (1) to three (3) days faster each month.

Approval of Resolution No. CC 2016-80 will approve the Amendment for State Administration of Local Sales and Use Taxes to be entered into by the City and the SBOE. In addition, per the Amendment, the Mayor or the City Manager are each authorized to approve and make changes, additions, amendments or modifications to the Amendment as may be necessary or advisable.

FISCAL IMPACT:

There is no fiscal impact with the approval of Resolution No. CC 2016-80.

RECOMMENDED ACTION:

Staff recommends the City Council approve Resolution CC 2016-80, authorizing and directing the execution and delivery of an amendment no. 1 of agreement for state administration of local sales and use taxes; and authorizing necessary actions in connection therewith.

ATTACHMENT:

1. Resolution No. CC 2016-80: Council Approval Authorizing and Directing the Execution and Delivery of an Amendment No. 1 of Agreement for State Administration of Local Sales and Use Taxes; and Authorizing Necessary Actions in Connection Therewith

2. Amendment No. 1 of Agreement for State Administration of Local Sales and Use Taxes

RESOLUTION NO. CC 2016-80

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA AUTHORIZING AND DIRECTING THE EXECUTION AND DELIVERY OF AN AMENDMENT NO. 1 OF AGREEMENT FOR STATE ADMINISTRATION OF LOCAL SALES AND USE TAXES; AND AUTHORIZING NECESSARY ACTIONS IN CONNECTION THEREWITH

WHEREAS, the City of Industry, California (the "City") is a charter city duly organized and existing under the Constitution and laws of the State of California; and

WHEREAS, the City acting under the powers reserved to the City under Sections 3, 5 and 7 of Article XI of the Constitution of the State of California and the Charter of the City, has adopted its Ordinance No. 654 on June 22, 2000, which enacted the City of Industry Sales and Use Tax Financing Law, constituting Chapter 3.60 of Title 3 of the Industry Municipal Code (the "Bond Law"), authorizing the issuance of bonds by the City which are secured by a pledge of and lien on sales and use tax revenues of the City (the "Sales Tax Revenues"), for the purpose of financing public capital improvements and working capital expenditures; and

WHEREAS, at a special election held in the City on September 26, 2000, more than 2/3 of the voters of the City approved the issuance of bonds under the Bond Law in the aggregate principal amount of $500,000,000, in accordance with Section 3.60.060 of the Bond Law and Section 18 of Article XVI of the Constitution of the State of California; and

WHEREAS, the City has previously issued bonds secured by a pledge and lien on the Sales Tax Revenues (the "Sales Tax Revenue Bonds");

WHEREAS, the trustee for the City's outstanding Sales Tax Revenue Bonds is currently U.S. Bank National Association (the "Trustee");

WHEREAS, in connection with the distribution of the Sales Tax Revenues to the City, the City previously entered into an Agreement for State Administration of Local Sales and Use Taxes (the "Sales Tax Agreement"), dated December 28, 1973, by and between the City and the State Board of Equalization ("SBOE");

WHEREAS, the City now desires for the Sales Tax Revenues to be transferred by the SBOE directly to the Trustee; and

WHEREAS, the City intends to implement such direct transfer of Sales Tax Revenues by amending the Sales Tax Agreement through the execution and delivery of an Amendment No. 1 of Agreement for State Administration of Local Sales and Use Taxes to be entered into by the City and the SBOE (the "Amendment"), Exhibit A;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals. The foregoing recitals are true and correct and the City Council hereby so finds and determines.

Section 2. The Amendment. The form of the Amendment, in substantially the form filed with the Chief Deputy City Clerk, is approved and adopted. The Mayor or the City Manager are each individually authorized and directed to execute by manual signature the Amendment in substantially such form, with such changes, additions, amendments or modifications, which are approved by the Mayor or the City Manager, such approval to be evidenced conclusively by such execution.

Section 3. Modification to Documents. The Mayor or the City Manager are each further authorized to approve and make such changes, additions, amendments or modifications to the Amendment as may be necessary or advisable. The approval of any change, addition, amendment or modification to any of such documents shall be evidenced conclusively by the execution and delivery of such document.

Section 4. General Authority. The Mayor, the City Manager, the Chief Deputy City Clerk and any other official of the City and their duly authorized deputies and agents are authorized and directed, for and in the name and on behalf of the City, to do any and all things and take any and all actions and execute and deliver any and all certificates, agreements and other documents which they, or any of them, may deem necessary or advisable in order to consummate the execution and delivery of the Amendment and to effectuate the purposes thereof and of the documents herein approved in accordance with this Resolution.

Section 5. Severability. If any provision of this Resolution or the application thereof to any person or circumstance is held invalid, the remainder of the Resolution, including the application of such part or provision to other persons or circumstances shall not be affected thereby and shall continue in full force and effect. To this end, provisions of this Resolution are severable. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases be held unconstitutional, invalid, or unenforceable.

Section 6. Ratification. All actions heretofore taken by the officials, employees and agents of the City with respect to the execution and delivery of the Amendment are hereby approved, confirmed and ratified.

[Remainder of Page Intentionally Left Blank]

PASSED, APPROVED AND ADOPTED by the City Council of the City of Industry, California, at a regular meeting held on the 8th day of December 2016.

_____
Mark D. Radecki, Mayor

ATTEST:

_____
Diane M. Schlichting, Chief Deputy City Clerk

EXHIBIT A

Amendment No. 1 of Agreement for State Administration of Local Sales and Use Taxes

Exhibit A

City of Industry

AMENDMENT NO. 1 OF

AGREEMENT FOR STATE ADMINISTRATION OF LOCAL SALES AND USE TAXES

Whereas, the City hereinabove designated, hereinafter called the City, and the State Board of Equalization, hereinafter called the Board, have heretofore entered into an agreement for state administration of local sales and use taxes as contemplated under part 1.5 of Division 2 of the Revenue and Taxation Code, dated December 28, 1973 (the "Agreement") and are now desirous of amending the Agreement in the manner hereinafter set forth, the City and the Board do hereby agree that the Agreement shall be amended in the following particulars, to wit:

Paragraph C of Article II of the Agreement is amended to read:

C. Transmittal of money. Except as otherwise provided herein, all local taxes collected under the provisions of the City Ordinance shall be transmitted to the City or Trustee of the City periodically as promptly as feasible. Such transmittals shall be made at least twice in each calendar quarter. Transmittals may be made by mail or by deposit to the account of the City designated by the City. A statement shall be furnished indicating the amount withheld pursuant to Article IV of the Agreement.

Notwithstanding anything herein to the contrary, so long as any bonds issued by the City secured by a pledge of all or a portion of the taxes imposed under the City Ordinance (the "Bonds") are outstanding, all local taxes collected under the provisions of the City Ordinance shall be transmitted directly to U.S. Bank National Association, as the initial trustee under the indentures relating to the Bonds, and thereafter to the bank corporation, banking association or other financial institution serving as trustee for the benefit of the owners of the Bonds pursuant to the indentures relating to the Bonds, including any successor (the "Trustee"). The corporate trust office of the initial Trustee is set forth below:

U.S. Bank National Association
633 W. Fifth Street 24th Floor
Los Angeles, California 90071
Attention: Global Corporate Trust Services
Telephone: (213) 615-6024

The account of the Trustee into which transmittals of the taxes shall be made is as follows:

Via ACH

If any successor to U.S. Bank National Association is selected as the Trustee, the City shall give written notice to the Board of the name of the Trustee, the address of the corporate trust office of the Trustee and the account of the Trustee into which transmittals of the taxes shall be made. The Board shall assume that Bonds are outstanding unless the City and the Trustee have both delivered 30 days' written notice to the Board stating that no Bonds remain outstanding.

Capitalized terms not herein defined shall have the meanings ascribed to such terms as provided in the Agreement.

The foregoing Amendment is to confirm the Agreement to a plan for transmittal of money to the City or Trustee of the City. This Amendment shall become effective December 1, 2016.

STATE BOARD OF EQUALIZATION

By_____
Executive Director

CITY OF INDUSTRY

By_____
(Signature on this line)

Mark D. Radecki
(Type name here)

Mayor
(Type title here)

ACKNOWLEDGEMENT BY THE TRUSTEE

The Trustee hereby acknowledges the provisions of this Amendment No. 1of Agreement for State Administration of Retail Transactions and Use Tax as they relate to it as Trustee hereunder.

Dated: _____, 20__

U.S. BANK NATIONAL ASSOCIATION,
as Trustee

By:_____
Authorized Officer

Authorized Officer

CITY COUNCIL

ITEM NO. 6.3

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Alex Gonzalez, Director of Development Services and Administration
Kristen Weger, Administrative Analyst

Date: December 8, 2016

SUBJECT: Consideration to Approve the Architecture Services Bench for a three year period from December 8, 2016 to December 8, 2019

On September 8, 2016, the City of Industry ("City") released a Request for Qualifications ("RFQ") for an Architecture Services Bench. The Architecture Services Bench will allow the City to pre-qualify a number of firms that can later be contacted to submit proposals as projects arise. The approval of this pre-qualified on-call bench is not an approval to award work, as any future awards will return to the City Council on a project specific basis after procurement from the on-call pre-qualified bench. The use of this pre-qualified bench is limited based on the source of project funds, as Federal funds and other grant fund sources may require procurement processes that preclude the use of the pre-qualified bench. It is staff's intention that a minimum of three (3) firms be available in each category, and as appropriate projects arise, the firms in each category will have an opportunity to submit a proposal for evaluation.

The RFQ was posted in the City's PlanetBids™ vendor portal and an email notification was sent out to all registered vendors. The appropriate trade journals were notified and included Bid America, Southern California Builders Association, Construction Bidboard and Dodge Data & Analytics on September 7, 2016. The RFQ was advertised on Thursday, September 8, 2016 and Thursday, September 15, 2016 in the San Gabriel Valley Tribune.

Statement of Qualifications ("SOQ") were received up until October 14, 2016 at 1:00 pm. Prior to the deadline, forty-six (46) prospective bidders viewed the RFQ. The City received six (6) proposals from Alta Planning + Design, BOA Architecture, IDS Group, Kluger Architects, Langdon Wilson International and Sage Environmental Group.

The SOQ's were reviewed by a panel which consisted of Troy Helling, Senior Planner, City of Industry and John Di Mario, Development Services Director, City of La Puente. The selection panel evaluated the qualifications received by each contractor based on the following criteria:

Criteria Categories	Criteria	Possible Points	Points Awarded
Project Understanding	Statement of Qualifications consistent with RFQ. Scope and work plan consistent with subject areas of expertise selected. Identification of key project factors.	10	
Project Management	Does the account manager and team members assigned to the project have prior experience on similar successful projects including, but not limited to, other public agencies?	10	
Qualifications of Firm/Team	Did the Contractor describe the technical qualifications and experience of proposed staff members?	10	
Responsiveness	Can the Contractor perform or provide the required professional services promptly without delay or interference?	10	
Total Points			

An RFQ Bench allows for evaluators to determine if multiple contractors are qualified to perform work. Price is not a determining factor in a Request for Qualifications. Proposers submitted a separate electronic document in PlanetBids™ with their fee schedules.

The following tables summarize the architecture benches for staff augmentation and development/project review services in alphabetical order.

Table 1 – Staff Augmentation for Architecture Services Bench

Alta Planning + Design
Langdon Wilson International
Sage Environmental Group

Table 2 – Development/Project Reviews for Architecture Services Bench

Alta Planning + Design
BOA Architecture
IDS Group
Kluger Architects
Langdon Wilson International
Sage Environmental Group

The City released the results of the RFQ process including score sheets, rankings and scoring criteria to all firms on November 21, 2016. The City did not receive any protests to the RFQ results.

Recommendation

Staff recommends that all architecture firms that submitted for the RFQ for Architecture Services Bench be determined qualified by City Council in the two respective categories for staff augmentation and development/project review. As City architectural projects arise in the future, the bench will be notified so they can submit proposals for such projects.

Fiscal Impact

There is no fiscal impact associated with this item.

Exhibits

A. Architecture Services Bench Summary of Statement of Qualification Scores and Rankings
B. Request for Qualifications ("RFQ") for Architecture Services Bench and Addendum Nos. 1-2
C. Statement of Qualifications Received from Contractors in Response to Request for Qualifications (RFQ) for Architecture Services Bench (on file in City of Industry City Clerk's Office)

PJP:AG:KW:mk

EXHIBIT A

Architecture Services Bench
Summary of Statement of Qualification Scores and Rankings

[Attached]

Contract No. 2016-1003
Request for Qualifications ("RFQ") for Architecture Services Bench
Summary of Statement of Qualifications
October 27, 2016

Criteria	Alta Planning + Design	BOA Architecture	IDS Group	Kluger Architects	Langdon Wilson International	Sage Environmental Group
John Di Mario, Development Services Director, City of La Puente	33	30	30	28	31	31
Troy Helling, Senior Planner, City of Industry	36	37	38	34	37	32
Total Score	69	67	68	62	68	63
Average Score	**34.5**	**33.5**	**34**	**31**	**34**	**31.5**
Ranking	**1**	**4**	**2**	**6**	**2**	**5**

EXHIBIT B

Request for Qualifications ("RFQ") for Architecture Services Bench and Addenda Nos. 1-2

[Attached]

CITY OF INDUSTRY

NOTICE INVITING REQUEST FOR QUALIFICATIONS

(RFQ) FOR ARCHITECTURE SERVICES BENCH

Contract No. 2016-1003

SUBMIT PROPOSALS TO
City of Industry via
PlanetBids™ Vendor Portal:

http://www.cityofindustry.org/?p=proposal-and-bid

SCHEDULE AND PROCESS:

RFQ Announcement and Issuance	Thursday, September 8, 2016
Question Submittal Deadline	Thursday, September 29, 2016 at 1:00 pm
Proposal Submittal Deadline	Friday, October 14, 2016 at 1:00 pm
Contractor Interview (if desired by City)	October 17-31, 2016
City Council Consideration (tentative)	Thursday, November 10, 2016

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SECTION 1
INTRODUCTION AND GENERAL INFORMATION

Overview of the Request for Proposals

The City of Industry (City) is requesting Qualifications to procure qualified contractors to provide technical and professional services to the City's Development Services Department and to develop a bench of qualified consultant firms that may be used as necessary.

Qualified contractors that are accepted on the Architecture Services Bench will execute agreements with the City that detail the areas of expertise for the firm and the hourly rates for services through the term of the contract. The City will use the pre-qualified Architecture Services Bench as projects arise by distributing proposal requests to a minimum of three firms on the pre-qualified bench to meet the procurement policies of the City of Industry.

The City reserves the right to release competitive procurements to firms outside of the pre-qualified Architecture Services Bench if the City determines that it is in its best interests, based on the project's funding source or any other factors at the discretion of the City.

RFQ Guidelines

All contacts pertaining to this Request for Qualifications shall be directed via the City of Industry's PlanetBids™ vendor portal to:

Kristen Weger, Administrative Analyst
City of Industry
P.O. Box 3366
City of Industry, CA 91744-0366
(626) 333-2211

The City assumes no responsibility for any costs incurred by an individual/Contractor in the preparation and/or presentation of a proposal in response to this Request. To be considered, respondents must submit a complete response in accordance with the requirements contained in **Section 4** of this Request. Submittals must be signed by the individual or an officer of the Contractor authorized to bind the Contractor to its provisions.

All submittals and supporting materials become the property of the City of Industry upon its receipt by the City. The City reserves the right to reject any and all submittals received, or to request additional information from any or all of the respondents for the purpose of ascertaining the most qualified individual(s)/Contractor(s) for the services requested.

Response Date

To be considered, a statement of qualifications must be received by the City of Industry no later than 1:00 p.m., on Friday, October 14, 2016 via the City of Industry's PlanetBids™ vendor portal. Proposals are to be submitted through http://www.cityofindustry.org/?p=proposal-and-bid.

Proposal cover page must clearly state: **ARCHITECTURE SERVICES BENCH**

Postmarks, mailed, emailed or hard copy proposals will not be accepted. Late proposals will not be accepted.

Selection of Contractor

The City shall select MULTIPLE Individual(s)/Contractor(s) based on a combination of factors, such as: responsiveness and comprehensiveness of the Proposer with respect to this Request for Qualifications (RFQ); technical background and experience of the firm; technical background and experience of the proposed team members; previous work performed for other public agencies; and information obtained from references. Proposers will self-identify the architecture services categories in which they consider themselves qualified, and proposers are encouraged to detail in their submittal the full range of expertise that the firm can provide. Cost will not be a deciding factor in selection, proposers will submit sealed price proposals that detail hourly rates for proposed staff. Markups for travel, subcontractor markups, or markups for other expenses that cannot be clearly documented and supported will not be accepted. Modifications to the City's Professional Services Agreement will not be accepted. This RFQ, to determine a prequalified bench for multiple architecture services, will be used to procure future project and program work that is not required to be procured under Federal guidelines. The City of Industry Municipal Code requires a minimum of three (3) proposals to award work, therefore, it is expected that a minimum of three (3) firms will be pre-qualified in each category in order to comply with the City's Municipal Code.

In addition, the following factors will be considered:

1. Completeness of the proposal and ability of the Proposer to comply with the mandatory requirements proposed under this RFQ;
2. Whether the Contractor has the financial resources and facilities to perform or provide the required services promptly, or within the time specified without delay or interference;
3. Experience implementing similar projects/programs;
4. Recommendations from prior clients and record of performance on previous contracts or services;
5. Ability to communicate effectively with a diverse population, particularly English, Spanish, Korean and Cantonese/Mandarin language speakers; and
6. Ability to respond or operate 24 hours a day, seven days a week in the event of an emergency.

Some or all of the respondents may be requested to make an oral presentation of their qualifications.

SECTION 2
SCOPE OF SERVICES

General Description

The City of Industry is seeking qualified contractors to provide a wide range of professional architecture services to the City under the guidance of City staff and the City's in-house contracted planning and engineering firm(s). It is the intent of the City to develop a comprehensive bench of pre-qualified contractors that can work in synergy to deliver projects, while introducing transparency in the procurement process. It is also critical for the City that multiple checks and balances are in place to ensure that the City's funds are used efficiently and that projects are built on-time and under budget. Services to be provided under this Request for Qualifications include, but are not necessarily limited to, the following:

1. **Staff Augmentation** for general architectural-related development review and project management services, including but not limited to: design services for remodeling of public buildings and parks, acting as a sub-consultant for civil, structural, mechanical, electrical, asbestos and lead abatement, landscape architecture and LEED certification.
2. **Development/Project Review** to analyze and process the full range for architectural services including preliminary studies, public outreach, renderings, drawings, specifications, estimates, scopes of work, plan check comments, construction administration and other professional services.

The City of Industry is particularly interested in firms with documented experience in projects that include:

- Building renovations such as seismic upgrades, ADA upgrades, kitchen and bathroom remodeling, HVAC upgrades, "green" upgrades, and code compliance updates of residential structures.
- Park and open space recreational improvements such as trails, pathways, play fields and courts, irrigation, golf courses, recreational buildings, and campgrounds.
- Public building renovations such as museums, libraries, historic structures, sports and entertainment stadiums, meeting halls, banquet and convention facilities.
- Landscape architecture services that are sensitive to existing open space and habitat resources. Documented experience in performing work in cooperation with Federal, State and local regulating agencies in sensitive habitat.

SECTION 3
CONTRACTOR QUALIFICATIONS AND REQUIREMENTS

General Qualifications and Requirements

In order to be considered, Proposers must meet the requirements outlined in this section. Proposers that do not meet the requirements will be considered non-responsive and their submittal will be rejected.

1. **Experience.** The selected individual(s)/Contractor(s) will have extensive experience that shows the Contractor(s) can provide professional, first-class service.

2. **Principal.** The account manager, or contact person, assigned to the City will be a consideration in the selection. Qualifications and prior experience in similar programs and activities must be demonstrated in the proposal. Once selected, the account manager, or contact person, assigned to the project or contract shall not be changed without prior written consent of the City. An organizational chart, if applicable, shall be submitted with the proposal.

3. **Appropriate Licenses or certifications.** Contractor is required to have in full force and affect all licenses and permits required by all applicable laws.

4. **Insurance.** The following are the legal and insurance requirements of the City of Industry for the selected Contractor. They are non-negotiable. The detailed insurance requirements are included in Exhibit A:

   a) Time for Compliance. Contractor shall not commence work under this Agreement until it has provided evidence satisfactory to the City that it has secured all insurance required under this section. In addition, Contractor shall not allow any subcontractor to commence work on any subcontract until it has provided evidence satisfactory to the City that the subcontractor has secured all insurance required under this section.

   b) Minimum Requirements. Contractor shall, at its expense, procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Agreement by the Contractor, its agents, representatives, employees or subcontractors. Contractor shall also require all of its subcontractors to procure and maintain the same insurance for the duration of the Agreement. Such insurance shall meet at least the following minimum levels of coverage:

      1. Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) *General Liability*: Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001); (2) *Automobile Liability*: Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto); and (3) *Workers' Compensation and Employer's Liability*: Workers' Compensation insurance as required by the State

of California and Employer's Liability Insurance.

2. Minimum Limits of Insurance. Contractor shall maintain limits no less than: (1) *General Liability:* $1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with general aggregate limit is used, either the general aggregate limit shall apply separately to this Agreement/location or the general aggregate limit shall be twice the required occurrence limit; (2) *Automobile Liability:* $1,000,000 per accident for bodily injury and property damage; and (3) *Workers' Compensation and Employer's Liability:* Workers' Compensation limits as required by the Labor Code of the State of California. Employer's Liability limits of $1,000,000 per accident for bodily injury or disease.

SECTION 4
PROPOSAL SUBMITTAL REQUIREMENTS

Submittal Format and Content

1. The submittal should be typed and as brief as possible while adequately describing the qualifications of the Contractor.

2. Only one proposal per Contractor will be considered, and the Contractor must clearly state all of the subject areas of expertise: **Staff Augmentation, Development and Project Review**.

3. The proposing Contractor shall submit the following information with the package, including the same information on subcontractors, in the following format:

   a. **Cover Letter.** In no more than two (2) pages, the Contractor should provide the name, address and phone number of the Consultant, the primary contact name and phone number, any qualifying statements or comments regarding the proposal and identification of any sub-consultants and their responsibilities. The signed letter should also include a paragraph stating that the Contractor is unaware of any conflict of interest in performing the proposed work.

   b. **Qualifications.** This portion should include a description of the qualifications of the assigned staff and sub-contractors, relevant technical experience, and the availability of the staff for the services provided. After selection of a Contractor(s) by the City, no substitution of key staff or subcontractors may occur without the written approval of the City. A list of related projects should be included with the name of the contract person and the telephone number for which the Contractor has recently or currently provides services as outlined under the Scope of Work.

   c. **Scope of Work.** The Contractor shall describe the proposed work by task, including any tasks to be performed by sub-contractors.

   d. **Project Fees.** Proposing Contractors must submit a sealed hourly fee proposal that includes a schedule of fees for all pertinent employees proposed for the project. Fee schedules for contractors that are not chosen will not be opened. Hourly rates are not a deciding factor in the award. It is expected that the hourly rates submitted will remain fixed for the duration of the contract, which is projected to be a three (3) year term.

   e. **Acceptance of Conditions.** This section will be a statement offering the Contractor's acceptance of all conditions listed in the Request for Qualifications document. Any exceptions or suggested changes to the RFQ or any contractual obligations, including the suggested change, the reasons therefore and the impact it may have on cost or other considerations on the Contractor's behalf must be stated in the submittal. Unless

specifically noted by the Contractor, the City will assume that the submittal is in compliance with all aspects of the RFQ.

Evaluation and Selection Process

Selection will follow these steps:

1. **Submittal Review**: Each submittal will be reviewed to determine if it meets the RFQ requirements. Failure to meet the requirements of the RFQ will be cause for rejection. The City will consider the following in selecting a contractor(s).

   Response to requested Scope of Services and this RFQ;
   Professional reputation;
   Experience of the Contractor;
   Qualifications;
   Number and experience of personnel;
   References provided.

2. **Interview.** Contractors may be interviewed by an oral board.

3. **Professional Services Agreement.** The Director of Development Services and Administration will request a professional services agreement subject to negotiation of precise work program, terms of payment and other City requirements from the Contractor(s) found most qualified. Nothing in this RFQ should imply a contractual obligation for employment.

4. **Contract Approval and Execution.** The agreement will be presented to the City of Industry City Council for approval and execution by the City Manager.

Please submit the proposal **no later than 1:00 p.m., on Friday, October 14, 2016** via City of Industry PlanetBids™ vendor portal http://www.cityofindustry.org/?p=proposal-and-bid.

Attachment 1

City of Industry
Professional Services Agreement

This PROFESSIONAL SERVICES AGREEMENT ("Agreement"), is made and effective as of INSERT DATE ("Effective Date"), between the City of Industry, a municipal corporation ("City") and INSERT NAME OF CONSULTANT AND TYPE OF LEGAL ENTITY [i.e.-limited liability company, corporation, partnership, etc.]("Consultant"). The City and Consultant are hereinafter collectively referred to as the "Parties".

RECITALS

WHEREAS, City desires to engage Consultant to perform the services described herein, and Consultant desires to perform such services in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions herein contained, City and Consultant agree as follows:

1. TERM

This Agreement shall commence on the Effective Date, and shall remain and continue in effect until tasks described herein are completed, but in no event later than INSERT DATE, unless sooner terminated pursuant to the provisions of this Agreement.

2. SERVICES

(a) Consultant shall perform the tasks ("Services") described and set forth in Exhibit A, attached hereto and incorporated herein as though set forth in full. ("Scope of Services"). Tasks other than those specifically described in the Scope of Services shall not be performed without prior written approval of the City. The Services shall be performed by Consultant, unless prior written approval is first obtained from the City. In the event of conflict or inconsistency between the terms of this Agreement and Exhibit A, the terms of this Agreement shall prevail.

(b) City shall have the right to request, in writing, changes to the Services. Any such changes mutually agreed upon by the Parties, and any corresponding increase or decrease in compensation, shall be incorporated by written amendment to this Agreement.

(c) Consultant shall perform all Services in a manner reasonably satisfactory to the City and in a first-class manner in conformance with the standards of quality normally observed by an entity providing INSERT TYPE OF SERVICES, serving a municipal agency.

(d) Consultant shall comply with all applicable federal, state, and local laws, regulations and ordinances in the performance of this Agreement, including but not limited to, the conflict of interest provisions of Government Code Section 1090 and the Political Reform Act (Government Code Section 81000 *et seq.*)). During the term of this Agreement, Consultant shall not perform any work for another person or entity for whom Consultant was not working on the Effective Date if both (i) such work would require Consultant to abstain from a decision under this Agreement pursuant to a conflict of interest statute or law; and (ii) City has not consented in writing to Consultant's performance of such work. No

officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* Consultant hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Consultant was an employee, agent, appointee, or official of the City in the previous twelve (12) months, Consultant warrants that it did not participate in any manner in the forming of this Agreement. Consultant understands that, if this Agreement is made in violation of Government Code §1090 *et. seq.*, the entire Agreement is void and Consultant will not be entitled to any compensation for Services performed pursuant to this Agreement, and Consultant will be required to reimburse the City for any sums paid to the Consultant. Consultant understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

(e) Consultant represents that it has, or will secure at its own expense, all licensed personnel required to perform the Services. All Services shall be performed by Consultant or under its supervision, and all personnel engaged in the Services shall be qualified and licensed to perform such services.

3. MANAGEMENT

City's INSERT STAFF RESPONSIBLE FOR THE PROJECT shall represent the City in all matters pertaining to the administration of this Agreement, review and approval of all products submitted by Consultant, but shall have no authority to modify the Services or the compensation due to Consultant.

4. PAYMENT

(a) The City agrees to pay Consultant monthly, in accordance with the payment rates and terms and the schedule of payment as set forth in Exhibit B ("Rate Schedule"), attached hereto and incorporated herein by this reference as though *set forth in full, based upon actual time* spent on the above tasks. This amount shall not exceed INSERT WRITTEN DOLLAR AMOUNT dollars ($) for the total Term of the Agreement unless additional payment is approved as provided in this Agreement.

(b) Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement which are in addition to those set forth herein, unless such additional services are authorized in advance and in writing by the City. Consultant shall be compensated for any additional services in the amounts and in the manner as agreed to by City and Consultant at the time City's written authorization is given to Consultant for the performance of said services.

(c) Consultant shall submit invoices monthly for actual services performed. Invoices shall be submitted on or about the first business day of each month, or as soon thereafter as practical, for services provided in the previous month. Payment shall be made within thirty (30) days of receipt of each invoice as to all non-disputed fees. If the City disputes any of Consultant's fees it shall give written notice to Consultant within thirty (30) days of receipt of an invoice of any disputed fees set forth on the invoice. Any final payment under this Agreement shall be made within 45 days of receipt of an invoice therefore.

5. LABOR CODE AND PREVAILING WAGES

(a) Consultant represents and warrants that it is aware of the requirements of California Labor Code Section 1720, *et seq.*, and 1770, *et seq.*, as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "Public Works" and "Maintenance" projects. If the Services are being performed as part of an applicable "Public Works" or "Maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $15,000.00 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. City shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant's principal place of business and any location where the Services are performed. Consultant shall indemnify, defend and hold harmless, the City, its elected officials, officers, employees and agents, from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, Consultant's or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant, failure or alleged failure to comply with Prevailing Wage Laws.

(b) In accordance with the requirements of Labor Code Section 1776, Consultant shall keep accurate payroll records which are either on forms provided by the Division of Labor Standards Enforcement or which contain the same information required by such forms. Consultant shall make all such records available for inspection at all reasonable hours.

(c) To the extent applicable, Consultant shall comply with the provisions of Section 1777.5 of the Labor Code with respect to the employment of properly registered apprentices upon public works.

(d) Consultant shall comply with the legal days work and overtime requirements of Sections 1813 and 1815 of the Labor Code.

(e) If the Services are being performed as part of an applicable Public works or Maintenance project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants performing such Services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Agreement and require the same of any subconsultants, as applicable. This Services set forth in this Agreement may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements.

6. SUSPENSION OR TERMINATION OF AGREEMENT

(a) The City may at any time, for any reason, with or without cause, suspend or terminate this Agreement, or any portion hereof, by serving upon the Consultant at least ten (10) days prior written notice. Upon receipt of said notice, the Consultant shall immediately cease all work under this Agreement, unless the notice provides otherwise. If the City suspends or terminates a portion of this Agreement such suspension or termination shall not make void or invalidate the remainder of this Agreement.

(b) In the event this Agreement is terminated pursuant to this Section, the City shall pay to Consultant the actual value of the work performed up to the time of termination, provided that the

work performed is of value to the City. Upon termination of the Agreement pursuant to this Section, the Consultant shall submit an invoice to the City pursuant to Section 5 of this Agreement.

7. OWNERSHIP OF DOCUMENTS

(a) Consultant shall maintain complete and accurate records with respect to sales, costs, expenses, receipts, and other such information required by City that relate to the performance of services under this Agreement. Consultant shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Consultant shall provide free access to the representatives of City or its designees at reasonable times to review such books and records; shall give City the right to examine and audit said books and records; shall permit City to make transcripts or copies therefrom as necessary; and shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement. Such records, together with supporting documents, shall be maintained for a period of three (3) years after receipt of final payment.

(b) Upon completion of, or in the event of termination or suspension of this Agreement, all original documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared in the course of providing the services to be performed pursuant to this Agreement shall become the sole property of the City and may be used, reused, or otherwise disposed of by the City without the permission of the Consultant. With respect to computer files, Consultant shall make available to the City, at the Consultant's office, and upon reasonable written request by the City, the necessary computer software and hardware for purposes of accessing, compiling, transferring, copying and/or printing computer files. Consultant hereby grants to City all right, title, and interest, including any copyright, in and to the documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared by Consultant in the course of providing the services under this Agreement. All reports, documents, or other written material developed by Consultant in the performance of the Services pursuant to this Agreement, shall be and remain the property of the City.

8. INDEMNIFICATION

(a) Indemnity for professional liability

When the law establishes a professional standard of care for Consultant's Services, to the fullest extent permitted by law, Consultant shall indemnify, protect, defend and hold harmless the City and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses, including legal counsel's fees and costs caused in whole or in part by any negligent or wrongful act, error or omission of Consultant, its officers, agents, employees or Subconsultants (or any agency or individual that Consultant shall bear the legal liability thereof) in the performance of professional services under this Agreement.

(b) Indemnity for other than professional liability

Other than in the performance of professional services and to the full extent permitted by law, Consultant shall indemnify, defend and hold harmless City, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this

Agreement by Consultant or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant.

(c) DUTY TO DEFEND. In the event the City, its officers, employees, agents and/or volunteers are made a party to any action, claim, lawsuit, or other adversarial proceeding arising from the performance of the services encompassed by this Agreement, and upon demand by City, Consultant shall have an immediate duty to defend the City at Consultant's cost or at City's option, to reimburse the City for its costs of defense, including reasonable attorney's fees and costs incurred in the defense of such matters.

Payment by City is not a condition precedent to enforcement of this indemnity. In the event of any dispute between Consultant and City, as to whether liability arises from the sole negligence of the City or its officers, employees, or agents, Consultant will be obligated to pay for City's defense until such time as a final judgment has been entered adjudicating the City as solely negligent. Consultant will not be entitled in the absence of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

9. INSURANCE

Consultant shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit C attached hereto and incorporated herein by reference.

10. INDEPENDENT CONSULTANT

(a) Consultant is and shall at all times remain as to the City a wholly independent consultant and/or independent contractor. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultants exclusive direction and control. Neither City nor any of its officers, employees, or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that it or any of its officers, employees, or agents are in any manner officers, employees, or agents of the City. Consultant shall not incur or have the power to incur any debt, obligation, or liability whatever against the City, or bind the City in any manner.

(b) No employee benefits shall be available to Consultant in connection with the performance of this Agreement. Except for the fees paid to Consultant as provided in the Agreement, City shall not pay salaries, wages, or other compensation to Consultant for performing services hereunder for City. City shall not be liable for compensation or indemnification to Consultant for injury or sickness arising out of performing services hereunder.

11. LEGAL RESPONSIBILITIES

The Consultant shall keep itself informed of State and Federal laws and regulations which in any manner affect those employed by it or in any way affect the performance of its service pursuant to this Agreement. The Consultant shall at all times observe and comply with all such laws and regulations. The City, and its officers and employees, shall not be liable at law or in equity occasioned by failure of the Consultant to comply with this Section.

12. UNDUE INFLUENCE

Consultant declares and warrants that no undue influence or pressure was used against or in concert with any officer or employee of the City in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential financial arrangement, or financial inducement. No officer or employee of the City has or will receive compensation, directly or indirectly, from Consultant, or from any officer, employee or agent of Consultant, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section shall be a material breach of this Agreement entitling the City to any and all remedies at law or in equity.

13. NO BENEFIT TO ARISE TO LOCAL OFFICERS AND EMPLOYEES

No member, officer, or employee of City, or their designees or agents, and no public official who exercises authority over or responsibilities with respect to the Project during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement, or the proceeds thereof, for work to be performed in connection with the Project performed under this Agreement.

14. RELEASE OF INFORMATION/CONFLICTS OF INTEREST

(a) All information gained by Consultant in performance of this Agreement shall be considered confidential and shall not be released by Consultant without City's prior written authorization. Consultant, its officers, employees, agents, or subconsultants, shall not without written authorization from the City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the work performed under this Agreement or relating to any project or property located within the City, unless otherwise required by law or court order. (b) Consultant shall promptly notify City should Consultant, its officers, employees, agents, or subconsultants be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions, or other discovery request ("Discovery"), court order, or subpoena from any person or party regarding this Agreement and the work performed there under or with respect to any project or property located within the City, unless Consultant is prohibited by law from informing the City of such Discovery, court order or subpoena. City retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding as allowed by law. Unless City is a party to the lawsuit, arbitration, or administrative proceeding and is adverse to Consultant in such proceeding, Consultant agrees to cooperate fully with the City and to provide the opportunity to review any response to discovery requests provided by Consultant. However, City's right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

15. NOTICES

Any notices which either party may desire to give to the other party under this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, which provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, addressed to the address of the party as set forth below or at any other address as that party may later designate by notice:

To City: City of Industry
15625 E. Stafford, Suite 100
City of Industry, CA 91744

Attention: City Manager

With a Copy To: James M. Casso, City Attorney
Casso & Sparks, LLP
13200 Crossroads Parkway North, Suite 345
City of Industry, CA 91746

To Consultant: _____
_____
_____

16. ASSIGNMENT

The Consultant shall not assign the performance of this Agreement, nor any part thereof, nor any monies due hereunder, without prior written consent of the City.

Before retaining or contracting with any subconsultant for any services under this Agreement, Consultant shall provide City with the identity of the proposed subconsultant, a copy of the proposed written contract between Consultant and such subconsultant which shall include and indemnity provision similar to the one provided herein and identifying City as an indemnified party, or an incorporation of the indemnity provision provided herein, and proof that such proposed subconsultant carries insurance at least equal to that required by this Agreement or obtain a written waiver from the City for such insurance.

Notwithstanding Consultant's use of any subconsultant, Consultant shall be responsible to the City for the performance of its subconstultant as it would be if Consultant had performed the Services itself. Nothing in this Agreement shall be deemed or construed to create a contractual relationship between the City and any subconsultant employed by Consultant. Consultant shall be solely responsible for payments to any subconsultants. Consultant shall indemnify, defend and hold harmless the Indemnified Parties for any claims arising from, or related to, the services performed by a subconsultant under this Agreement.

17. GOVERNING LAW/ATTORNEYS' FEES

The City and Consultant understand and agree that the laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement and also govern the interpretation of this Agreement. Any litigation concerning this Agreement shall take place in the municipal, superior, or federal district court in Los Angeles County, California. If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of or relating to the Services provided by Consultant under this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and all related costs, including costs of expert witnesses and consultants, as well as costs on appeal, in addition to any other relief to which it may be entitled.

18. ENTIRE AGREEMENT

This Agreement contains the entire understanding between the Parties relating to the obligations of the Parties described in this Agreement. All prior or contemporaneous agreements, understandings, representations, and statements, oral or written and pertaining to the subject of this Agreement or with respect to the terms and conditions of this Agreement, are merged into this Agreement and shall be of no further force or effect. Each party is entering into this Agreement

based solely upon the representations set forth herein and upon each party's own independent investigation of any and all facts such party deems material.

19. SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

20. COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

21. CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

22. WAIVER

The waiver by City or Consultant of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Consultant unless in writing.

23. REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

24. AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Consultant represents and warrants that he/she has the authority to execute this Agreement on behalf of the Consultant and has the authority to bind Consultant to the performance of its obligations hereunder.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the Effective Date.

"CITY"

City of Industry

By:_____

Paul Philips, City Manager

"CONSULTANT"

INSERT NAME OF COMPANY

By_____

Name, Title

Attest:

By:_____

Cecelia Dunlap, Deputy City Clerk

Approved as to form:

By:_____

James M. Casso, City Attorney

Attachments: Exhibit A Scope of Services

Exhibit B Rate Schedule

Exhibit C Insurance Requirements

EXHIBIT A

SCOPE OF SERVICES

EXHIBIT B

RATE SCHEDULE

EXHIBIT C

INSURANCE REQUIREMENTS

Without limiting Consultant's indemnification of City, and prior to commencement of the Services, Consultant shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to Agency.

General liability insurance. Consultant shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $1,000,000.00 per occurrence, $2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Consultant shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Consultant arising out of or in connection with Work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000.00 combined single limit for each accident.

Professional liability (errors & omissions) insurance. Consultant shall maintain professional liability insurance that covers the Services to be performed in connection with this Agreement, in the minimum amount of $1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this agreement and Consultant agrees to maintain continuous coverage through a period no less than three years after completion of the services required by this agreement.

Workers' compensation insurance. Consultant shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000.00).

Consultant shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of Agency, its officers, agents, employees and volunteers.

Proof of insurance. Consultant shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this contract. City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the Services hereunder by Consultant, his agents, representatives, employees or subconsultants.

Primary/noncontributing. Coverage provided by Consultant shall be primary and any insurance or self-insurance procured or maintained by City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Consultant, or City will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Consultant acknowledges and agrees that any actual or alleged failure on the part of the City to inform Consultant of non-compliance with any requirement imposes no additional obligations on the Agency nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Consultant agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Consultant agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by

Consultant, provide the same minimum insurance coverage and endorsements required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Consultant agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise specifications. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Consultant ninety (90) days advance written notice of such change. If such change results in substantial additional cost to the Consultant, the City and Consultant may renegotiate Consultant's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Consultant shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from Consultant's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Consultant shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

September 21, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

RFQ Addendum No. 1

CITY OF INDUSTRY

REQUEST FOR QUALIFICATIONS ("RFQ") FOR ARCHITECTURE SERVICES BENCH

CONTRACT NO. 2016-1003

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original "Request for Qualifications" (RFQ).

All other terms and conditions remain unchanged.

REQUEST FOR QUALIFICATIONS

SECTION 4, PROPOSAL SUBMITTAL REQUIREMENTS, SUBMITTAL FORMAT AND CONTENT, PAGE 8,

3. The proposing Contractor shall submit the following information with the package, in the following format:

A. **COVER LETTER,** the first sentence shall read: In no more than two (2) pages, the Contractor should provide the name, address and phone number of the Consultant, the primary contact name and phone number, any qualifying statements or comments regarding the proposal and identification of their responsibilities.

B. **QUALIFICATIONS.** This portion should include a description of the qualifications of the assigned staff, relevant technical experience, and the availability of the staff for the services provided. After selection of a Contractor(s) by the City, no substitution of key staff may occur without the written approval of the City. A list

of related projects should be included with the name of the contract person and the telephone number for which the Contractor has recently or currently provides services as outlined under the Scope of Work.

C. **SCOPE OF WORK.** The Contractor shall briefly describe the proposed work that would be performed for the architecture services category submitting. However, the City would like firms to submit individually based on their experience and in-house qualifications.

D. **PROJECT FEES**, Proposing Contractors must upload and submit a sealed hourly fee proposal that includes a schedule of fees for all pertinent employees proposed for the project via the City of Industry's Planet Bids vendor portal. All sealed hourly fee proposal files shall be uploaded as a separate file from the Statement of Qualifications and shall be clearly marked "Hourly Fee Proposal" in the file name.

END OF ADDENDUM

October 6, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

RFQ Addendum No. 2

CITY OF INDUSTRY

REQUEST FOR QUALIFICATIONS ("RFQ") FOR ARCHITECTURE SERVICES BENCH

CONTRACT NO. 2016-1003

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original "Request for Qualifications" (RFQ).

All other terms and conditions remain unchanged.

REQUEST FOR QUALIFICATIONS

COVER PAGE, SCHEDULE AND PROCESS,

Contractor Interview (if desired by City) October 17 – November 4, 2016.

PAGE 9, EVALUATION AND SELECTION PROCESS, 2. INTERVIEW,

Contractors submitting for consideration to provide Staff Augmentation services may be interviewed by an oral board. All other subject areas of expertise submitted will not be interviewed.

END OF ADDENDUM

EXHIBIT C

Statement of Qualifications Received from Contractors in Response to Request for Qualifications (RFQ) for Architecture Services Bench

(on file in City of Industry City Clerk's Office)

CITY COUNCIL

ITEM NO. 6.4

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Alex Gonzalez, Director of Development Services and Administration AG
Kristen Weger, Administrative Analyst KW

Date: December 8, 2016

SUBJECT: Consideration to Approve the Planning Services Bench for a three year period from December 8, 2016 to December 8, 2019

On September 8, 2016, the City of Industry ("City") released a Request for Qualifications ("RFQ") for a Planning Services Bench. The Planning Services Bench will allow the City to pre-qualify a number of firms that can later be contacted to submit proposals as projects arise. The approval of this pre-qualified on-call bench is not an approval to award work, as any future awards will return to the City Council on a project specific basis after procurement from the on-call pre-qualified bench. The use of this pre-qualified bench is limited based on the source of project funds, as Federal funds and other grant fund sources may require procurement processes that preclude the use of the pre-qualified bench. It is staff's intention that a minimum of three (3) firms be available in each category, and as appropriate projects arise, the firms in each category will have an opportunity to submit a proposal for evaluation.

The RFQ was posted in the City's PlanetBids™ vendor portal and an email notification was sent out to all registered vendors. The appropriate trade journals were notified and included Bid America, Southern California Builders Association, Construction Bidboard and Dodge Data & Analytics on September 7, 2016. The RFQ was advertised on Thursday, September 8, 2016 and Thursday, September 15, 2016 in the San Gabriel Valley Tribune.

Statement of Qualifications ("SOQ") were received up until October 13, 2016 at 1:00 pm. Prior to the deadline, forty-nine (49) prospective bidders viewed the RFQ. The City received thirteen (13) proposals from Alta Planning + Design, Annealta Group, CASC Engineering and Consulting, Cordoba Corporation, CSG Consultants, Inc., DKS Associates, Dudek, JMDiaz, Inc., KOA Corporation, Michael Baker International, Placeworks, RK Engineering Group, Inc., and Sage Environmental Group.

The SOQ's were reviewed by a panel which consisted of Alex Gonzalez, Director of Development Services & Administration, City of Industry, Troy Helling, Senior Planner,

City of Industry and John Di Mario, Development Services Director, City of La Puente. The selection panel evaluated the qualifications received by each contractor based on the following criteria:

Criteria Categories	Criteria	Possible Points	Points Awarded
Project Understanding	Statement of Qualifications consistent with RFQ. Scope and work plan consistent with subject areas of expertise selected. Identification of key project factors.	10	
Project Management	Does the account manager and team members assigned to the project have prior experience on similar successful projects including, but not limited to, other public agencies?	10	
Qualifications of Firm/Team	Did the Contractor describe the technical qualifications and experience of proposed staff members?	10	
Responsiveness	Can the Contractor perform or provide the required professional services promptly without delay or interference?	10	
Total Points			

An RFQ Bench allows for evaluators to determine if multiple contractors are qualified to perform work. The top three overall ranked firms who submitted for staff augmentation services were invited to interview with the City, which took place on Monday, November 7, 2016 and Tuesday, November 8, 2016. Those firms were Annealta Group, CSG Consultants, Inc., and Michael Baker International. The interview panel members included Alex Gonzalez, Director of Development Services & Administration, City of Industry, Troy Helling, Senior Planner, City of Industry, and Josh Nelson, Deputy City Engineer, CNC Engineering.

The following tables summarize the planning services benches in alphabetical order for staff augmentation, development review, environmental review, transportation planning, and environmental planning services.

Table 1 – Staff Augmentation Services

Annealta Group

Table 2 – Development Review Services

Annealta Group
CASC Engineering and Consulting
CSG Consultants, Inc.

Dudek
Michael Baker International

Table 3 – Environmental Review

CASC Engineering and Consulting
CSG Consultants, Inc.
DKS Associates
Dudek
Michael Baker International
Placeworks
RK Engineering Group, Inc.
Sage Environmental Group

Table 4 – Transportation Planning

Alta Planning + Design
Annealta Group
CSG Consultants, Inc.
DKS Associates
Dudek
KOA Corporation
Michael Baker International
Placeworks
RK Engineering Group, Inc.

Table 5 – Environmental Planning Services

CASC Engineering and Consulting
CSG Consultants, Inc.
Dudek
Michael Baker International
Placeworks
Sage Environmental Group

The City released the results of the RFQ process including score sheets, rankings and scoring criteria to all firms on November 18, 2016. The City did not receive any protests to the RFQ results.

Recommendation

Staff recommends that the planning firms listed in the tables above be determined qualified by City Council in the five respective categories for staff augmentation, development review, environmental review, transportation planning and environmental planning. As City planning projects arise in the future, the bench will be notified so they can submit proposals for such projects.

Fiscal Impact

There is no fiscal impact associated with this item.

Exhibits

A. Planning Services Bench Summary of Statement of Qualifications ("SOQ") and Interview Scores and Rankings
B. Request for Qualifications ("RFQ") for Planning Services Bench and Addendum Nos. 1-2
C. Statement of Qualifications Received from Contractors in Response to Request for Qualifications (RFQ) for Architecture Services Bench (on file in City of Industry City Clerk's Office)

PJP:AG:KW:mk

EXHIBIT A

Planning Services Bench Summary of Statement of Qualifications ("SOQ") and Interview Scores and Rankings

[Attached]

Contract No. 2016-1004
Request for Qualifications ("RFQ") for Planning Services Bench
Summary of Planning Interviews
November 8, 2016

Criteria	Annealta Group	CSG Consultants, Inc.	Michael Baker International
Alex Gonzalez, Director of Development Services and Administration, City of Industry	39	31	34
Josh Nelson, Deputy City Engineer, CNC Engineering	39	34	38
Troy Helling, Senior Planner, City of Industry	38	35	36
Total Score	116	100	108
Average Score	**38.666667**	**33.33333333**	**36**
Ranking	**1**	**3**	**2**

Contract No. 2016-1004
Request for Qualifications ("RFQ") for Planning Services Bench
Summary of Statement of Qualifications
October 27, 2016

Criteria	Alta Planning + Design	Annealta Group	CASC Engineering and Consulting	Cordoba Corporation	CSG Consultants, Inc.	DKS Associates	Dudek	JMDiaz, Inc.	KOA Corporation	Michael Baker International	Placeworks	RK Engineering Group, Inc.	Sage Environmental Group
Alex Gonzalez, Director of Development Services and Administration, City of Industry	37	38	38	34	40	35	37	29	37	36	38	32	31
John Di Mario, Development Services Director, City of La Puente	30	29	30	31	29	29	31	28	32	32	31	31	30
Troy Helling, Senior Planner, City of Industry	37	33	38	34	31	33	37	32	38	36	37	36	32
Total Score	104	100	106	99	100	97	105	89	107	104	106	99	93
Average Score	**34.666667**	**33.33333333**	**35.33333333**	**33**	**33.33333333**	**32.33333333**	**35**	**29.667**	**35.6666667**	**34.6666667**	**35.333333**	**33**	**31**
Ranking	**4**	**5**	**2**	**6**	**5**	**7**	**3**	**9**	**1**	**4**	**2**	**6**	**8**

EXHIBIT B

Request for Qualifications ("RFQ") for Planning Services Bench and Addendum Nos. 1-2

[Attached]

CITY OF INDUSTRY

NOTICE INVITING REQUEST FOR QUALIFICATIONS

(RFQ) FOR PLANNING SERVICES BENCH

Contract No. 2016-1004

SUBMIT PROPOSALS TO
City of Industry via
PlanetBids™ Vendor Portal:

http://www.cityofindustry.org/?p=proposal-and-bid

SCHEDULE AND PROCESS:

RFQ Announcement and Issuance	Thursday, September 8, 2016
Question Submittal Deadline	Thursday, September 29, 2016 at 1:00 pm
Proposal Submittal Deadline	Thursday, October 13, 2016 at 1:00 pm
Contractor Interview (if desired by City)	October 24-31, 2016
City Council Consideration (tentative)	Thursday, November 10, 2016

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SECTION 1
INTRODUCTION AND GENERAL INFORMATION

Overview of the Request for Proposals

The City of Industry (City) is requesting Qualifications to procure qualified contractors to provide technical, professional, and staff support services to the City's Development Services Department and to develop a bench of qualified consultant firms that may be used as necessary.

Qualified contractors that are accepted on the Planning Services Bench will execute agreements with the City that detail the areas of expertise for the firm and the hourly rates for services through the term of the contract. The City will use the pre-qualified Planning Services Bench as projects arise by distributing proposal requests to a minimum of three firms on the pre-qualified bench to meet the procurement policies of the City of Industry.

The City reserves the right to release competitive procurements to firms outside of the pre-qualified Engineering Services Bench if the City determines that it is in its best interests, based on the project's funding source or any other factors at the discretion of the City.

RFQ Guidelines

All contacts pertaining to this Request for Qualifications shall be directed via the City of Industry's PlanetBids™ vendor portal to:

Kristen Weger, Administrative Analyst
City of Industry
P.O. Box 3366
City of Industry, CA 91744-0366
(626) 333-2211

The City assumes no responsibility for any costs incurred by an individual/Contractor in the preparation and/or presentation of a proposal in response to this Request. To be considered, respondents must submit a complete response in accordance with the requirements contained in **Section 4** of this Request. Submittals must be signed by the individual or an officer of the Contractor authorized to bind the Contractor to its provisions.

All submittals and supporting materials become the property of the City of Industry upon its receipt by the City. The City reserves the right to reject any and all submittals received, or to request additional information from any or all of the respondents for the purpose of ascertaining the most qualified individual(s)/Contractor(s) for the services requested.

Response Date

To be considered, a statement of qualifications must be received by the City of Industry no later than 1:00 p.m., on Thursday, October 13, 2016 via the City of Industry's PlanetBids™ vendor portal. Proposals are to be submitted through http://www.cityofindustry.org/?p=proposal-and-bid.

Proposal cover page must clearly state: **PLANNING SERVICES BENCH**

Postmarks, mailed, emailed or hard copy proposals will not be accepted. Late proposals will not be accepted.

Selection of Contractor

The City shall select MULTIPLE Individual(s)/Contractor(s) based on a combination of factors, such as: responsiveness and comprehensiveness of the Proposer with respect to this Request for Qualifications (RFQ); technical background and experience of the firm; technical background and experience of the proposed team members; previous work performed for other public agencies; and information obtained from references. Proposers will self-identify the planning services categories in which they consider themselves qualified, and proposers are encouraged to detail in their submittal the full range of expertise that the firm can provide. Cost will not be a deciding factor in selection, proposers will submit sealed price proposals that detail hourly rates for proposed staff. Markups for travel, subcontractor markups, or markups for other expenses that cannot be clearly documented and supported will not be accepted. Modifications to the City's Professional Services Agreement will not be accepted. This RFQ, to determine a prequalified bench for multiple planning services, will be used to procure future project and program work that is not required to be procured under Federal guidelines. The City of Industry Municipal Code requires a minimum of three (3) proposals to award work, therefore, it is expected that a minimum of three (3) firms will be pre-qualified in each category in order to comply with the City's Municipal Code.

In addition, the following factors will be considered:

1. Completeness of the proposal and ability of the Proposer to comply with the mandatory requirements proposed under this RFQ;
2. Whether the Contractor has the financial resources and facilities to perform or provide the required services promptly, or within the time specified without delay or interference;
3. Experience implementing similar projects/programs;
4. Recommendations from prior clients and record of performance on previous contracts or services;
5. Ability to communicate effectively with a diverse population, particularly English, Spanish, Korean and Cantonese/Mandarin language speakers; and
6. Ability to respond or operate 24 hours a day, seven days a week in the event of an emergency.

Some or all of the respondents may be requested to make an oral presentation of their qualifications.

SECTION 2
SCOPE OF SERVICES

General Description

The City of Industry is seeking qualified contractors to provide a wide range of professional planning services to the City under the guidance of City staff and the City's in-house contracted planning firm(s). The City's in-house contracted planning firm(s) are not precluded from submitting bids on projects that require procurement. If the contracted in-house planning firm expresses a desire to submit a bid on a project that requires procurement, their staff will be precluded from participating in the procurement process. However, if the City's in-house contracted planning firm(s) is awarded a contract after a competitive procurement process, another planning firm from the pre-qualified bench will be chosen to provide project oversight, management and any other services deemed necessary to ensure peer review. It is the intent of the City to develop a comprehensive bench of pre-qualified contractors that can work in synergy to deliver projects, while introducing transparency in the procurement process. It is also critical for the City that multiple checks and balances are in place to ensure that the City's funds are used efficiently and that projects are built on-time and under budget. Services to be provided under this Request for Qualifications include, but are not necessarily limited to, the following:

1. **Staff Augmentation** for general planning-related development review and project management services, such as: creating presentations for the City Council and Planning Commission, writing staff reports and conditions of approval with associated resolutions, coordinate with City Code Enforcement staff on planning-related issues, be present at City Hall and hold regular office hours and counter hours as agreed upon by staff and Consultant.
2. **Development Review** to analyze and process development applications to include, but not limited to: Specific Plans, Site Development Permits, Tract Maps, Zone Changes, Overlays and Conditional Use Permits.
3. **Environmental Review** and preparation of environmental review documents to include, but not limited to: Environmental Impact Reports, Mitigated Negative Declarations, and Initial Studies pursuant to California Environmental Quality Act guidelines (CEQA) and National Environmental Policy Act (NEPA) regulations.
4. **Transportation Planning**, including Bicycle, Pedestrian and Human Factors.
5. **Environmental Planning Services**, including staff support and reporting for open space and habitat areas.

The City of Industry is particularly interested in firms with documented experience in developing sustainability projects that address the following areas: alternative energy generation, stormwater capture and treatment, preservation/recreational use of habitat and open space, and innovative programs/systems that address the negative externalities of industrial processes.

SECTION 3
CONTRACTOR QUALIFICATIONS AND REQUIREMENTS

General Qualifications and Requirements

In order to be considered, Proposers must meet the requirements outlined in this section. Proposers that do not meet the requirements will be considered non-responsive and their submittal will be rejected.

1. **Experience.** The selected individual(s)/Contractor(s) will have extensive experience that shows the Contractor(s) can provide professional, first-class service.

2. **Principal.** The account manager, or contact person, assigned to the City will be a consideration in the selection. Qualifications and prior experience in similar programs and activities must be demonstrated in the proposal. Once selected, the account manager, or contact person, assigned to the project or contract shall not be changed without prior written consent of the City. An organizational chart, if applicable, shall be submitted with the proposal.

3. **Appropriate Licenses or certifications.** Contractor is required to have in full force and affect all licenses and permits required by all applicable laws.

4. **Insurance.** The following are the legal and insurance requirements of the City of Industry for the selected Contractor. They are non-negotiable. The detailed insurance requirements are included in Exhibit A:

   a) Time for Compliance. Contractor shall not commence work under this Agreement until it has provided evidence satisfactory to the City that it has secured all insurance required under this section. In addition, Contractor shall not allow any subcontractor to commence work on any subcontract until it has provided evidence satisfactory to the City that the subcontractor has secured all insurance required under this section.

   b) Minimum Requirements. Contractor shall, at its expense, procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Agreement by the Contractor, its agents, representatives, employees or subcontractors. Contractor shall also require all of its subcontractors to procure and maintain the same insurance for the duration of the Agreement. Such insurance shall meet at least the following minimum levels of coverage:

      1. Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) *General Liability*: Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001); (2) *Automobile Liability*: Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto); and (3) *Workers' Compensation and Employer's Liability*: Workers' Compensation insurance as required by the State

of California and Employer's Liability Insurance.

2. Minimum Limits of Insurance. Contractor shall maintain limits no less than: (1) *General Liability:* $1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with general aggregate limit is used, either the general aggregate limit shall apply separately to this Agreement/location or the general aggregate limit shall be twice the required occurrence limit; (2) *Automobile Liability:* $1,000,000 per accident for bodily injury and property damage; and (3) *Workers' Compensation and Employer's Liability:* Workers' Compensation limits as required by the Labor Code of the State of California. Employer's Liability limits of $1,000,000 per accident for bodily injury or disease.

SECTION 4
PROPOSAL SUBMITTAL REQUIREMENTS

Submittal Format and Content

1. The submittal should be typed and as brief as possible while adequately describing the qualifications of the Contractor.

2. Only one proposal per Contractor will be considered, and the Contractor must clearly state all of the subject areas of expertise: **Staff Augmentation, Development Review, Environmental Review, Transportation Planning or Environmental Planning Services**.

3. The proposing Contractor shall submit the following information with the package, including the same information on subcontractors, in the following format:

   a. **Cover Letter.** In no more than two (2) pages, the Contractor should provide the name, address and phone number of the Consultant, the primary contact name and phone number, any qualifying statements or comments regarding the proposal and identification of any sub-consultants and their responsibilities. The signed letter should also include a paragraph stating that the Contractor is unaware of any conflict of interest in performing the proposed work.

   b. **Qualifications.** This portion should include a description of the qualifications of the assigned staff and sub-contractors, relevant technical experience, and the availability of the staff for the services provided. After selection of a Contractor(s) by the City, no substitution of key staff or subcontractors may occur without the written approval of the City. A list of related projects should be included with the name of the contract person and the telephone number for which the Contractor has recently or currently provides services as outlined under the Scope of Work.

   c. **Scope of Work.** The Contractor shall describe the proposed work by task, including any tasks to be performed by sub-contractors.

   d. **Project Fees.** Proposing Contractors must submit a sealed hourly fee proposal that includes a schedule of fees for all pertinent employees proposed for the project. Fee schedules for contractors that are not chosen will not be opened. Hourly rates are not a deciding factor in the award. It is expected that the hourly rates submitted will remain fixed for the duration of the contract, which is projected to be a three (3) year term.

   e. **Acceptance of Conditions.** This section will be a statement offering the Contractor's acceptance of all conditions listed in the Request for Qualifications document. Any exceptions or suggested changes to the RFQ or any contractual obligations, including the suggested change, the reasons therefore and the impact it may have on cost or other considerations on the Contractor's behalf must be stated in the submittal. Unless

specifically noted by the Contractor, the City will assume that the submittal is in compliance with all aspects of the RFQ.

Evaluation and Selection Process

Selection will follow these steps:

1. **Submittal Review:** Each submittal will be reviewed to determine if it meets the RFQ requirements. Failure to meet the requirements of the RFQ will be cause for rejection. The City will consider the following in selecting a contractor(s).

   Response to requested Scope of Services and this RFQ;
   Professional reputation;
   Experience of the Contractor;
   Qualifications;
   Number and experience of personnel;
   References provided.

2. **Interview.** Contractors may be interviewed by an oral board.

3. **Professional Services Agreement.** The Director of Development Services and Administration will request a professional services agreement subject to negotiation of precise work program, terms of payment and other City requirements from the Contractor(s) found most qualified. Nothing in this RFQ should imply a contractual obligation for employment.

4. **Contract Approval and Execution.** The agreement will be presented to the City of Industry City Council for approval and execution by the City Manager.

Please submit the proposal **no later than 1:00 p.m., on Thursday, October 13, 2016** via City of Industry PlanetBids™ vendor portal http://www.cityofindustry.org/?p=proposal-and-bid.

Attachment 1

City of Industry
Professional Services Agreement

This PROFESSIONAL SERVICES AGREEMENT ("Agreement"), is made and effective as of INSERT DATE ("Effective Date"), between the City of Industry, a municipal corporation ("City") and INSERT NAME OF CONSULTANT AND TYPE OF LEGAL ENTITY [i.e.-limited liability company, corporation, partnership, etc.]("Consultant"). The City and Consultant are hereinafter collectively referred to as the "Parties".

RECITALS

WHEREAS, City desires to engage Consultant to perform the services described herein, and Consultant desires to perform such services in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions herein contained, City and Consultant agree as follows:

1. TERM

This Agreement shall commence on the Effective Date, and shall remain and continue in effect until tasks described herein are completed, but in no event later than INSERT DATE, unless sooner terminated pursuant to the provisions of this Agreement.

2. SERVICES

(a) Consultant shall perform the tasks ("Services") described and set forth in Exhibit A, attached hereto and incorporated herein as though set forth in full. ("Scope of Services"). Tasks other than those specifically described in the Scope of Services shall not be performed without prior written approval of the City. The Services shall be performed by Consultant, unless prior written approval is first obtained from the City. In the event of conflict or inconsistency between the terms of this Agreement and Exhibit A, the terms of this Agreement shall prevail.

(b) City shall have the right to request, in writing, changes to the Services. Any such changes mutually agreed upon by the Parties, and any corresponding increase or decrease in compensation, shall be incorporated by written amendment to this Agreement.

(c) Consultant shall perform all Services in a manner reasonably satisfactory to the City and in a first-class manner in conformance with the standards of quality normally observed by an entity providing INSERT TYPE OF SERVICES, serving a municipal agency.

(d) Consultant shall comply with all applicable federal, state, and local laws, regulations and ordinances in the performance of this Agreement, including but not limited to, the conflict of interest provisions of Government Code Section 1090 and the Political Reform Act (Government Code Section 81000 *et seq.*)). During the term of this Agreement, Consultant shall not perform any work for another person or entity for whom Consultant was not working on the Effective Date if both (i) such work would require Consultant to abstain from a decision under this Agreement pursuant to a conflict of interest statute or law; and (ii) City has not consented in writing to Consultant's performance of such work. No

officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* Consultant hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Consultant was an employee, agent, appointee, or official of the City in the previous twelve (12) months, Consultant warrants that it did not participate in any manner in the forming of this Agreement. Consultant understands that, if this Agreement is made in violation of Government Code §1090 *et. seq.*, the entire Agreement is void and Consultant will not be entitled to any compensation for Services performed pursuant to this Agreement, and Consultant will be required to reimburse the City for any sums paid to the Consultant. Consultant understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

(e) Consultant represents that it has, or will secure at its own expense, all licensed personnel required to perform the Services. All Services shall be performed by Consultant or under its supervision, and all personnel engaged in the Services shall be qualified and licensed to perform such services.

3. MANAGEMENT

City's INSERT STAFF RESPONSIBLE FOR THE PROJECT shall represent the City in all matters pertaining to the administration of this Agreement, review and approval of all products submitted by Consultant, but shall have no authority to modify the Services or the compensation due to Consultant.

4. PAYMENT

(a) The City agrees to pay Consultant monthly, in accordance with the payment rates and terms and the schedule of payment as set forth in Exhibit B ("Rate Schedule"), attached hereto and incorporated herein by this reference as though set forth in full, based upon actual time spent on the above tasks. This amount shall not exceed INSERT WRITTEN DOLLAR AMOUNT dollars ($) for the total Term of the Agreement unless additional payment is approved as provided in this Agreement.

(b) Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement which are in addition to those set forth herein, unless such additional services are authorized in advance and in writing by the City. Consultant shall be compensated for any additional services in the amounts and in the manner as agreed to by City and Consultant at the time City's written authorization is given to Consultant for the performance of said services.

(c) Consultant shall submit invoices monthly for actual services performed. Invoices shall be submitted on or about the first business day of each month, or as soon thereafter as practical, for services provided in the previous month. Payment shall be made within thirty (30) days of receipt of each invoice as to all non-disputed fees. If the City disputes any of Consultant's fees it shall give written notice to Consultant within thirty (30) days of receipt of an invoice of any disputed fees set forth on the invoice. Any final payment under this Agreement shall be made within 45 days of receipt of an invoice therefore.

5. LABOR CODE AND PREVAILING WAGES

(a) Consultant represents and warrants that it is aware of the requirements of California Labor Code Section 1720, *et seq.*, and 1770, *et seq.*, as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "Public Works" and "Maintenance" projects. If the Services are being performed as part of an applicable "Public Works" or "Maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $15,000.00 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. City shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant's principal place of business and any location where the Services are performed. Consultant shall indemnify, defend and hold harmless, the City, its elected officials, officers, employees and agents, from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, Consultant's or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant, failure or alleged failure to comply with Prevailing Wage Laws.

(b) In accordance with the requirements of Labor Code Section 1776, Consultant shall keep accurate payroll records which are either on forms provided by the Division of Labor Standards Enforcement or which contain the same information required by such forms. Consultant shall make all such records available for inspection at all reasonable hours.

(c) To the extent applicable, Cosultant shall comply with the provisions of Section 1777.5 of the Labor Code with respect to the employment of properly registered apprentices upon public works.

(d) Consultant shall comply with the legal days work and overtime requirements of Sections 1813 and 1815 of the Labor Code.

(e) If the Services are being performed as part of an applicable Public works or Maintenance project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants performing such Services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Agreement and require the same of any subconsultants, as applicable. This Services set forth in this Agreement may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements.

6. SUSPENSION OR TERMINATION OF AGREEMENT

(a) The City may at any time, for any reason, with or without cause, suspend or terminate this Agreement, or any portion hereof, by serving upon the Consultant at least ten (10) days prior written notice. Upon receipt of said notice, the Consultant shall immediately cease all work under this Agreement, unless the notice provides otherwise. If the City suspends or terminates a portion of this Agreement such suspension or termination shall not make void or invalidate the remainder of this Agreement.

(b) In the event this Agreement is terminated pursuant to this Section, the City shall pay to Consultant the actual value of the work performed up to the time of termination, provided that the

work performed is of value to the City. Upon termination of the Agreement pursuant to this Section, the Consultant shall submit an invoice to the City pursuant to Section 5 of this Agreement.

7. OWNERSHIP OF DOCUMENTS

(a) Consultant shall maintain complete and accurate records with respect to sales, costs, expenses, receipts, and other such information required by City that relate to the performance of services under this Agreement. Consultant shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Consultant shall provide free access to the representatives of City or its designees at reasonable times to review such books and records; shall give City the right to examine and audit said books and records; shall permit City to make transcripts or copies therefrom as necessary; and shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement. Such records, together with supporting documents, shall be maintained for a period of three (3) years after receipt of final payment.

(b) Upon completion of, or in the event of termination or suspension of this Agreement, all original documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared in the course of providing the services to be performed pursuant to this Agreement shall become the sole property of the City and may be used, reused, or otherwise disposed of by the City without the permission of the Consultant. With respect to computer files, Consultant shall make available to the City, at the Consultant's office, and upon reasonable written request by the City, the necessary computer software and hardware for purposes of accessing, compiling, transferring, copying and/or printing computer files. Consultant hereby grants to City all right, title, and interest, including any copyright, in and to the documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared by Consultant in the course of providing the services under this Agreement. All reports, documents, or other written material developed by Consultant in the performance of the Services pursuant to this Agreement, shall be and remain the property of the City.

8. INDEMNIFICATION

(a) Indemnity for professional liability

When the law establishes a professional standard of care for Consultant's Services, to the fullest extent permitted by law, Consultant shall indemnify, protect, defend and hold harmless the City and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses, including legal counsel's fees and costs caused in whole or in part by any negligent or wrongful act, error or omission of Consultant, its officers, agents, employees or Subconsultants (or any agency or individual that Consultant shall bear the legal liability thereof) in the performance of professional services under this Agreement.

(b) Indemnity for other than professional liability

Other than in the performance of professional services and to the full extent permitted by law, Consultant shall indemnify, defend and hold harmless City, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this

Agreement by Consultant or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant.

(c) DUTY TO DEFEND. In the event the City, its officers, employees, agents and/or volunteers are made a party to any action, claim, lawsuit, or other adversarial proceeding arising from the performance of the services encompassed by this Agreement, and upon demand by City, Consultant shall have an immediate duty to defend the City at Consultant's cost or at City's option, to reimburse the City for its costs of defense, including reasonable attorney's fees and costs incurred in the defense of such matters.

Payment by City is not a condition precedent to enforcement of this indemnity. In the event of any dispute between Consultant and City, as to whether liability arises from the sole negligence of the City or its officers, employees, or agents, Consultant will be obligated to pay for City's defense until such time as a final judgment has been entered adjudicating the City as solely negligent. Consultant will not be entitled in the absence of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

9. INSURANCE

Consultant shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit C attached hereto and incorporated herein by reference.

10. INDEPENDENT CONSULTANT

(a) Consultant is and shall at all times remain as to the City a wholly independent consultant and/or independent contractor. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultants exclusive direction and control. Neither City nor any of its officers, employees, or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that it or any of its officers, employees, or agents are in any manner officers, employees, or agents of the City. Consultant shall not incur or have the power to incur any debt, obligation, or liability whatever against the City, or bind the City in any manner.

(b) No employee benefits shall be available to Consultant in connection with the performance of this Agreement. Except for the fees paid to Consultant as provided in the Agreement, City shall not pay salaries, wages, or other compensation to Consultant for performing services hereunder for City. City shall not be liable for compensation or indemnification to Consultant for injury or sickness arising out of performing services hereunder.

11. LEGAL RESPONSIBILITIES

The Consultant shall keep itself informed of State and Federal laws and regulations which in any manner affect those employed by it or in any way affect the performance of its service pursuant to this Agreement. The Consultant shall at all times observe and comply with all such laws and regulations. The City, and its officers and employees, shall not be liable at law or in equity occasioned by failure of the Consultant to comply with this Section.

12. UNDUE INFLUENCE

Consultant declares and warrants that no undue influence or pressure was used against or in concert with any officer or employee of the City in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential financial arrangement, or financial inducement. No officer or employee of the City has or will receive compensation, directly or indirectly, from Consultant, or from any officer, employee or agent of Consultant, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section shall be a material breach of this Agreement entitling the City to any and all remedies at law or in equity.

13. NO BENEFIT TO ARISE TO LOCAL OFFICERS AND EMPLOYEES

No member, officer, or employee of City, or their designees or agents, and no public official who exercises authority over or responsibilities with respect to the Project during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement, or the proceeds thereof, for work to be performed in connection with the Project performed under this Agreement.

14. RELEASE OF INFORMATION/CONFLICTS OF INTEREST

(a) All information gained by Consultant in performance of this Agreement shall be considered confidential and shall not be released by Consultant without City's prior written authorization. Consultant, its officers, employees, agents, or subconsultants, shall not without written authorization from the City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the work performed under this Agreement or relating to any project or property located within the City, unless otherwise required by law or court order. (b) Consultant shall promptly notify City should Consultant, its officers, employees, agents, or subconsultants be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions, or other discovery request ("Discovery"), court order, or subpoena from any person or party regarding this Agreement and the work performed there under or with respect to any project or property located within the City, unless Consultant is prohibited by law from informing the City of such Discovery, court order or subpoena. City retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding as allowed by law. Unless City is a party to the lawsuit, arbitration, or administrative proceeding and is adverse to Consultant in such proceeding, Consultant agrees to cooperate fully with the City and to provide the opportunity to review any response to discovery requests provided by Consultant. However, City's right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

15. NOTICES

Any notices which either party may desire to give to the other party under this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, which provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, addressed to the address of the party as set forth below or at any other address as that party may later designate by notice:

To City: City of Industry
15625 E. Stafford, Suite 100
City of Industry, CA 91744

Attention: City Manager

With a Copy To: James M. Casso, City Attorney
Casso & Sparks, LLP
13200 Crossroads Parkway North, Suite 345
City of Industry, CA 91746

To Consultant: _____
_____
_____

16. ASSIGNMENT

The Consultant shall not assign the performance of this Agreement, nor any part thereof, nor any monies due hereunder, without prior written consent of the City.

Before retaining or contracting with any subconsultant for any services under this Agreement, Consultant shall provide City with the identity of the proposed subconsultant, a copy of the proposed written contract between Consultant and such subconsultant which shall include and indemnity provision similar to the one provided herein and identifying City as an indemnified party, or an incorporation of the indemnity provision provided herein, and proof that such proposed subconsultant carries insurance at least equal to that required by this Agreement or obtain a written waiver from the City for such insurance.

Notwithstanding Consultant's use of any subconsultant, Consultant shall be responsible to the City for the performance of its subconstultant as it would be if Consultant had performed the Services itself. Nothing in this Agreement shall be deemed or construed to create a contractual relationship between the City and any subconsultant employed by Consultant. Consultant shall be solely responsible for payments to any subconsultants. Consultant shall indemnify, defend and hold harmless the Indemnified Parties for any claims arising from, or related to, the services performed by a subconsultant under this Agreement.

17. GOVERNING LAW/ATTORNEYS' FEES

The City and Consultant understand and agree that the laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement and also govern the interpretation of this Agreement. Any litigation concerning this Agreement shall take place in the municipal, superior, or federal district court in Los Angeles County, California. If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of or relating to the Services provided by Consultant under this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and all related costs, including costs of expert witnesses and consultants, as well as costs on appeal, in addition to any other relief to which it may be entitled.

18. ENTIRE AGREEMENT

This Agreement contains the entire understanding between the Parties relating to the obligations of the Parties described in this Agreement. All prior or contemporaneous agreements, understandings, representations, and statements, oral or written and pertaining to the subject of this Agreement or with respect to the terms and conditions of this Agreement, are merged into this Agreement and shall be of no further force or effect. Each party is entering into this Agreement

based solely upon the representations set forth herein and upon each party's own independent investigation of any and all facts such party deems material.

19. SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

20. COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

21. CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

22. WAIVER

The waiver by City or Consultant of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Consultant unless in writing.

23. REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

24. AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Consultant represents and warrants that he/she has the authority to execute this Agreement on behalf of the Consultant and has the authority to bind Consultant to the performance of its obligations hereunder.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the Effective Date.

"CITY"

City of Industry

By:_____

Paul Philips, City Manager

"CONSULTANT"

INSERT NAME OF COMPANY

By_____

Name, Title

Attest:

By:_____

Cecelia Dunlap, Deputy City Clerk

Approved as to form:

By:_____

James M. Casso, City Attorney

Attachments:	Exhibit A	Scope of Services
	Exhibit B	Rate Schedule
	Exhibit C	Insurance Requirements

EXHIBIT A

SCOPE OF SERVICES

EXHIBIT B

RATE SCHEDULE

EXHIBIT C

INSURANCE REQUIREMENTS

Without limiting Consultant's indemnification of City, and prior to commencement of the Services, Consultant shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to Agency.

General liability insurance. Consultant shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $1,000,000.00 per occurrence, $2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Consultant shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Consultant arising out of or in connection with Work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000.00 combined single limit for each accident.

Professional liability (errors & omissions) insurance. Consultant shall maintain professional liability insurance that covers the Services to be performed in connection with this Agreement, in the minimum amount of $1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this agreement and Consultant agrees to maintain continuous coverage through a period no less than three years after completion of the services required by this agreement.

Workers' compensation insurance. Consultant shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000.00).

Consultant shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of Agency, its officers, agents, employees and volunteers.

Proof of insurance. Consultant shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this contract. City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the Services hereunder by Consultant, his agents, representatives, employees or subconsultants.

Primary/noncontributing. Coverage provided by Consultant shall be primary and any insurance or self-insurance procured or maintained by City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Consultant, or City will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Consultant acknowledges and agrees that any actual or alleged failure on the part of the City to inform Consultant of non-compliance with any requirement imposes no additional obligations on the Agency nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Consultant agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Consultant agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by

Consultant, provide the same minimum insurance coverage and endorsements required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Consultant agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise specifications. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Consultant ninety (90) days advance written notice of such change. If such change results in substantial additional cost to the Consultant, the City and Consultant may renegotiate Consultant's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Consultant shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from Consultant's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Consultant shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

September 21, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

RFQ Addendum No. 1

CITY OF INDUSTRY

REQUEST FOR QUALIFICATIONS ("RFQ") FOR PLANNING SERVICES BENCH

CONTRACT NO. 2016-1004

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original "Request for Qualifications" (RFQ).

All other terms and conditions remain unchanged.

REQUEST FOR QUALIFICATIONS

SECTION 4, PROPOSAL SUBMITTAL REQUIREMENTS, SUBMITTAL FORMAT AND CONTENT, PAGE 8,

3. The proposing Contractor shall submit the following information with the package, in the following format:

A. COVER LETTER, the first sentence shall read: In no more than two (2) pages, the Contractor should provide the name, address and phone number of the Consultant, the primary contact name and phone number, any qualifying statements or comments regarding the proposal and identification of their responsibilities.

B. QUALIFICATIONS. This portion should include a description of the qualifications of the assigned staff, relevant technical experience, and the availability of the staff for the services provided. After selection of a Contractor(s) by the City, no substitution of key staff may occur without the written approval of the City. A list of related projects should be included with the name of the contract person and

the telephone number for which the Contractor has recently or currently provides services as outlined under the Scope of Work.

C. **SCOPE OF WORK.** The Contractor shall briefly describe the proposed work that would be performed for the planning services category submitting. However, the City would like firms to submit individually based on their experience and in-house qualifications.

D. **PROJECT FEES**, Proposing Contractors must upload and submit a sealed hourly fee proposal that includes a schedule of fees for all pertinent employees proposed for the project via the City of Industry's Planet Bids vendor portal. All sealed hourly fee proposal files shall be uploaded as a separate file from the Statement of Qualifications and shall be clearly marked "Hourly Fee Proposal" in the file name.

END OF ADDENDUM

October 6, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

RFQ Addendum No. 2

CITY OF INDUSTRY

REQUEST FOR QUALIFICATIONS ("RFQ") FOR PLANNING SERVICES BENCH

CONTRACT NO. 2016-1004

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original "Request for Qualifications" (RFQ).

All other terms and conditions remain unchanged.

REQUEST FOR QUALIFICATIONS

COVER PAGE, SCHEDULE AND PROCESS,

Contractor Interview (if desired by City) October 24 – November 4, 2016.

PAGE 9, EVALUATION AND SELECTION PROCESS, 2. INTERVIEW,

Contractors submitting for consideration to provide Staff Augmentation services may be interviewed by an oral board. All other subject areas of expertise submitted will not interviewed.

END OF ADDENDUM

EXHIBIT C

Statement of Qualifications Received from Contractors in Response to Request for Qualifications (RFQ) for Planning Services Bench

(on file in City of Industry City Clerk's Office)

CITY COUNCIL

ITEM NO. 6.5

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Alex Gonzalez, Director of Development Services and Administration
Kristen Weger, Administrative Analyst

Date: December 8, 2016

SUBJECT: Consideration to Approve the Engineering Services Bench for a three year period from December 8, 2016 to December 8, 2019

On September 8, 2016, the City of Industry ("City") released a Request for Qualifications ("RFQ") for an Engineering Services Bench. The Engineering Services Bench will allow the City to pre-qualify a number of firms that can later be contacted to submit proposals as projects arise. The approval of this pre-qualified on-call bench is not an approval to award work, as any future awards will return to the City Council on a project specific basis after procurement from the on-call pre-qualified bench. The use of this pre-qualified bench is limited based on the source of project funds, as Federal funds and other grant fund sources may require procurement processes that preclude the use of the pre-qualified bench. It is staff's intention that a minimum of three (3) firms be available in each category, and as appropriate projects arise, the firms in each category will have an opportunity to submit a proposal for evaluation.

The RFQ was posted in the City's PlanetBids™ vendor portal and an email notification was sent out to all registered vendors. The appropriate trade journals were notified and included Bid America, Southern California Builders Association, Construction Bidboard and Dodge Data & Analytics on September 7, 2016. The RFQ was advertised on Thursday, September 8, 2016 and Thursday, September 15, 2016 in the San Gabriel Valley Tribune.

Statement of Qualifications ("SOQ") were received up until October 12, 2016 at 1:00 pm. Prior to the deadline, seventy-five (75) prospective bidders viewed the RFQ. The City received thirty-eight (38) SOQ's from AESCO, Alta Planning + Design, Annealta Group, Avant Garde, Biggs Cardosa Associates, Inc., BKF Engineers, CASC Engineering and Consulting, Civil Works Engineers, Civiltec Engineering inc., CNC Engineering, Cordoba Corporation, CWE Corp., DKS Associates, ES Engineering Services, Geo-Advantec, Inc., GK & Associates, Henkels & McCoy, HRGreen, Interwest Consulting Group, JAS Pacific, JMDiaz, Inc., Kimley-Horn & Associates, Inc., Kleinfelder, KOA Corporation Planning & Engineering, MasTek, Inc., Ninyo & Moore, Onward Engineering, Owen Group, Inc.,

Psomas, RK Engineering Group, Inc., S2 Engineering, Inc., Sage Environmental Group, Towill, Transportation & Energy Solutions, Inc., Transtech Engineers, Inc., VM3 Environmental, and and WKE, Inc.

The SOQ's were reviewed by a panel which consisted of Alex Gonzalez, Director of Development Services & Administration, City of Industry, Greg Galindo, General Manager, La Puente Valley County Water District, and Raul Garibay, Supervising Water Engineer, City of Pomona. The selection panel evaluated the qualifications received by each contractor based on the following criteria:

Criteria Categories	Criteria	Possible Points	Points Awarded
Project Understanding	Statement of Qualifications consistent with RFQ. Scope and work plan consistent with subject areas of expertise selected. Identification of key project factors.	10	
Project Management	Does the account manager and team members assigned to the project have prior experience on similar successful projects including, but not limited to, other public agencies?	10	
Qualifications of Firm/Team	Did the Contractor describe the technical qualifications and experience of proposed staff members?	10	
Responsiveness	Can the Contractor perform or provide the required professional services promptly without delay or interference?	10	
Total Points			

The top overall ranked firms who submitted for staff augmentation services were invited to interview with the City, which took place on Tuesday, November 8th. Those firms were Cordoba Corporation, CWE Corp, HRGreen, JMDiaz, Inc., and Onward Engineering. The interview panel members included Alex Gonzalez, Director of Development Services & Administration, City of Industry, Clem Calvillo, City Engineer, CNC Engineering, William Hayes, Field Operations and Asset Superintendent, City of Industry, Kristen Weger, Administrative Analyst, City of Industry and Greg Galindo, General Manager, La Puente Valley County Water District.

On November 17, 2016, the City Council considered and awarded Professional Services Agreements for engineering staff augmentation services to Cordoba Corporation and JMDiaz, Inc., based on the interview rankings.

The following tables summarize the engineering services benches in alphabetical order for staff augmentation, civil engineering, structural engineering, project management/construction management, geotechnical engineering, survey and right of

way engineering, traffic and transportation engineering, contract and funding administration, permit inspections, potable water, recycled water and stormwater design, electrical engineering, landfill management design, ADA and CASp support and environmental engineering.

Table 1 – Staff Augmentation

Cordoba Corporation
JMDiaz, Inc.

Table 2 – Civil Engineering

BKF Engineers
Civil Works Engineers
CNC Engineering
Cordoba Corporation
JMDiaz, Inc.
Kimley Horn & Associates, Inc.
Onward Engineering
WKE, Inc.

Table 3 – Structural Engineering

Biggs Cardosa Associates, Inc.
Kleinfelder
Owen Group, Inc.
Transtech Engineers, Inc.

Table 4 – Project Management/Construction Management

Avant Garde
CNC Engineering
Cordoba Corporation
Interwest Consulting Group
JAS Pacific
Onward Engineering

Table 5 – Geotechnical Engineering

AESCO
ES Engineering Services
Geo-Advantec, Inc.
Kleinfelder
Ninyo & Moore

Table 6 – Survey and Right of Way Engineering

CNC Engineering
Cordoba Corporation
Henkels & McCoy
Psomas
Towill

Table 7 – Traffic and Transportation Engineering

Alta Planning & Design
CNC Engineering
Cordoba Corporation
JMDiaz, Inc.
Kimley Horn & Associates, Inc.
KOA Corporation Planning & Engineering
RK Engineering Group, Inc.
Transportation & Energy Solutions, Inc.

Table 8 – Contract and Funding Administration

Avant Garde
CNC Engineering
Cordoba Corporation

Table 9 – Permit Inspections

CASC Engineering and Consulting
CNC Engineering
Cordoba Corporation
GK & Associates
Onward Engineering
Sage Environmental Group

Table 10 – Potable Water, Recycled Water and Stormwater Design

CASC Engineering and Consulting
Civilsource, Inc.
Civiltec Engineering, Inc.
CNC Engineering
Cordoba Corporation
CWE Corp.
HRGreen
Kimley Horn & Associates, Inc.

Table 11 – Electrical Engineering

Cordoba Corporation
MasTek, Inc.
Owen Group, Inc.
Transtech Engineers, Inc.

Table 12 – Internet and Data Utility Design

Cordoba Corporation
HRGreen
Transtech Engineers, Inc.

Table 13 – Landfill Management Design

Cordoba Corporation
ES Engineering Services
Transtech Engineers, Inc.

Table 14 – ADA and CASp Support

CNC Engineering
Interwest Consulting Group
Owen Group, Inc.
S2 Engineering, Inc.
Transtech Engineers, Inc.

Table 15 – Environmental Engineering

Cordoba Corporation
Kimley Horn & Associates, Inc.
Kleinfelder
Transportation & Energy Solutions, Inc.

The City released the results of the RFQ process including score sheets, rankings and scoring criteria to all firms on November 28, 2016. The City did not receive any protests to the RFQ results.

Recommendation

Staff recommends that the engineering firms listed in the tables above be determined qualified by City Council in the fifteen respective categories for staff augmentation, civil engineering, structural engineering, project management/construction management, geotechnical engineering, survey and right of way engineering, traffic and transportation engineering, contract and funding administration, permit inspections, potable water, recycled water and stormwater design, electrical engineering, landfill management design, ADA and CASp support and environmental engineering. As City engineering projects arise in the future, the bench will be notified so they can submit proposals for such projects.

Fiscal Impact

There is no fiscal impact associated with this item.

Exhibits

A. Engineering Services Bench Summary of Statement of Qualifications ("SOQ") and Interview Scores and Rankings
B. Request for Qualifications ("RFQ") for Engineering Services Bench and Addendum Nos. 1-3
C. Statement of Qualifications Received from Contractors in Response to Request for Qualifications (RFQ) for Engineering Services Bench (on file in City of Industry City Clerk's Office)

PJP:AG:KW:mk

EXHIBIT A

Engineering Services Bench Summary of Statement of Qualifications ("SOQ") and Interview Scores and Rankings

[Attached]

Contract No. 2016-1002

Request for Qualifications ("RFQ") for Engineering Services Bench

Engineering Interview Summary

November 8, 2016

Criteria	Cordoba Corporation	CWE Corp	JMDiaz, Inc.	HRGreen	Onward Engineering
Alex Gonzalez, Director of Development Services and Administration, City of Industry	38	27	36	29	32
Greg Galindo, General Manager, La Puente Valley County Water District	36	20	36	33	36
Clem Calvillo, City Engineer, CNC Engineering	35	23	39	26	31
William Hayes, Field Operations & Asset Superintendent, City of Industry	39	20	36	31	29
Kristen Weger, Administrative Analyst, City of Industry	39	29	37	35	36
Total Score	187	119	184	154	164
Average Score	**37.4**	**23.8**	**36.8**	**30.8**	**32.8**
Ranking	**1**	**5**	**2**	**4**	**3**

Contract No. 2016-1002
Request for Qualifications ("RFQ") for Engineering Services Bench
Summary of Statement of Qualifications
October 27, 2016

Criteria	AESCO	Alta Planning + Design	Annealta Group	Avant Garde	Biggs Cardosa Associates, Inc.	BKF Engineers	CASC Engineering and Consulting	IAS Pacific	MasTek, Inc.	DKS Associates	Owen Group, Inc.	Civil Works Engineers
Alex Gonzalez, Director of Development Services and Administration, City of Industry	33	27	29	28	33	31	32	33	33	34	34	35
Greg Galindo, General Manager, La Puente Valley County Water District	37	27	29	26	31	37	34	29	32	34	33	34
Raul Garibay, Supervising Water Resources Engineer, City of Pomona	37	34	37	37	37	37	40	34	37	34	37	37
Total Score	107	88	95	91	101	105	106	96	102	102	104	106
Average Score	**35.666667**	**29.333333**	**31.66667**	**30.333333**	**33.66667**	**35**	**35.333333**	**32**	**34**	**34**	**34.667**	**35.3333**
Ranking	**6**	**22**	**16**	**19**	**12**	**8**	**7**	**15**	**11**	**11**	**9**	**7**

Civilsource, Inc.	CNC Engineering	CWE Corp	RK Engineering Group, Inc.	Kleinfelder	JMDiaz, Inc.	Sage Environmental Group	ES Engineering Services	Cordoba Corporation	Geo-Advantec, Inc.	GK & Associates	Henkels & McCoy	HR Green	Transportation & Energy Solutions, Inc.	Interwest Consulting Group
35	38	37	31	33	37	24	28	37	31	21	18	39	30	31
35	37	36	31	33	36	18	28	38	30	13	16	34	29	31
33	37	40	37	37	37	37	37	37	40	31	40	35	39	37
103	112	113	99	103	110	79	93	112	101	65	74	108	98	99
34.33333	**37.33333**	**37.667**	**33**	**34.33333**	**36.66667**	**26.3333333**	**31**	**37.33333**	**33.6667**	**21.666667**	**24.667**	**36**	**32.6666667**	**33**
10	**2**	**1**	**13**	**10**	**3**	**25**	**17**	**2**	**12**	**29**	**26**	**5**	**14**	**13**

KOA Corporation Planning & Engineering	Ninyo & Moore	Civiltec engineering inc.	Onward Engineering	Psomas	Kimley Horn & Associates, Inc.	S2 Engineering, Inc.	Towill	Transtech Engineers, Inc.	VM3 Environmental	WKE
30	32	23	36	27	33	31	26	23	16	25
25	30	19	33	25	31	31	24	24	13	21
37	37	31	40	37	37	37	40	37	38	37
92	99	73	109	89	101	99	90	84	67	83
30.666667	**33**	**24.3333333**	**36.333333**	**29.667**	**33.666667**	**33**	**30**	**28**	**22.3333333**	**27.667**
18	**13**	**27**	**4**	**21**	**12**	**13**	**20**	**23**	**28**	**24**

EXHIBIT B

Request for Qualifications ("RFQ") for Engineering Services Bench and Addendum Nos. 1-3

[Attached]

CITY OF INDUSTRY

NOTICE INVITING REQUEST FOR QUALIFICATIONS

(RFQ) FOR ENGINEERING SERVICES BENCH

Contract No. 2016-1002

SUBMIT PROPOSALS TO
City of Industry via
PlanetBids™ Vendor Portal:

http://www.cityofindustry.org/?p=proposal-and-bid

SCHEDULE AND PROCESS:

RFQ Announcement and Issuance	Thursday, September 8, 2016
Question Submittal Deadline	Thursday, September 29, 2016 at 1:00 pm
Proposal Submittal Deadline	Wednesday, October 12, 2016 at 1:00 pm
Contractor Interview (if desired by City)	October 17-28, 2016
City Council Consideration (tentative)	Thursday, November 10, 2016

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SECTION 1
INTRODUCTION AND GENERAL INFORMATION

Overview of the Request for Proposals

The City of Industry (City) is requesting Qualifications to procure qualified contractors to provide technical, professional, and staff support services to the City's Development Services Department and to develop a bench of qualified consultant firms that may be used as necessary.

Qualified contractors that are accepted on the Engineering Services Bench will execute agreements with the City that detail the areas of expertise for the firm and the hourly rates for services through the term of the contract. The City will use the pre-qualified Engineering Services Bench as projects arise by distributing proposal requests to a minimum of three firms on the pre-qualified bench to meet the procurement policies of the City of Industry.

The City reserves the right to release competitive procurements to firms outside of the pre-qualified Engineering Services Bench if the City determines that it is in its best interests, based on the project's funding source or any other factors at the discretion of the City.

RFQ Guidelines

All contacts pertaining to this Request for Qualifications shall be directed via the City of Industry's PlanetBids™ vendor portal to:

Kristen Weger, Administrative Analyst
City of Industry
P.O. Box 3366
City of Industry, CA 91744-0366
(626) 333-2211

The City assumes no responsibility for any costs incurred by an individual/Contractor in the preparation and/or presentation of a proposal in response to this Request. To be considered, respondents must submit a complete response in accordance with the requirements contained in **Section 4** of this Request. Submittals must be signed by the individual or an officer of the Contractor authorized to bind the Contractor to its provisions.

All submittals and supporting materials become the property of the City of Industry upon its receipt by the City. The City reserves the right to reject any and all submittals received, or to request additional information from any or all of the respondents for the purpose of ascertaining the most qualified individual(s)/Contractor(s) for the services requested.

Response Date

To be considered, a statement of qualifications must be received by the City of Industry no later than 1:00 p.m., on Wednesday, October 12, 2016 via the City of Industry's PlanetBids™ vendor portal. Proposals are to be submitted through http://www.cityofindustry.org/?p=proposal-and-bid.

Proposals cover page must clearly state: **ENGINEERING SERVICES BENCH**

Postmarks, mailed, emailed or hard copy proposals will not be accepted. Late proposals will not be accepted.

Selection of Contractor

The City shall select MULTIPLE Individual(s)/Contractor(s) based on a combination of factors, such as: responsiveness and comprehensiveness of the Proposer with respect to this Request for Qualifications (RFQ); technical background and experience of the firm; technical background and experienced of the proposed team members; previous work performed for other public agencies; and information obtained from references. Proposers will self-identify the engineering services categories in which they consider themselves qualified, and proposers are encouraged to detail in their submittal the full range of expertise that the firm can provide. Cost will not be a deciding factor in selection, proposers will submit sealed price proposals that detail hourly rates for proposed staff. Markups for travel, subcontractor markups, or markups for other expenses that cannot be clearly documented and supported will not be accepted. Modifications to the City's Professional Services Agreement will not be accepted. This RFQ, to determine a prequalified bench for multiple engineering services, will be used to procure future project and program work that is not required to be procured under Federal guidelines. The City of Industry Municipal Code requires a minimum of three (3) proposals to award work, therefore, it is expected that a minimum of three (3) firms will be pre-qualified in each category in order to comply with the City's Municipal Code.

In addition, the following factors will be considered:

1. Completeness of the proposal and ability of the Proposer to comply with the mandatory requirements proposed under this RFQ;
2. Whether the Contractor has the financial resources and facilities to perform or provide the required services promptly, or within the time specified without delay or interference;
3. Experience implementing similar projects/programs;
4. Recommendations from prior clients and record of performance on previous contracts or services;
5. Ability to communicate effectively with a diverse population, particularly English, Spanish, Korean and Cantonese/Mandarin language speakers; and
6. Ability to respond or operate 24 hours a day, seven days a week in the event of an emergency.

Some or all of the respondents may be requested to make an oral presentation of their qualifications.

SECTION 2
SCOPE OF SERVICES

General Description

The City of Industry is seeking qualified contractors to provide a wide range of professional engineering services to the City under the guidance of City staff and the City's in-house contracted engineering firm(s). The City's in-house contracted engineering firm(s) are not precluded from submitting bids on projects that require procurement. If the contracted in-house engineering firm expresses a desire to submit a bid on a project that requires procurement, their staff will be precluded from participating in the procurement process. However, if the City's in-house contracted engineering firm(s) is awarded a contract after a competitive procurement process, another engineering firm from the pre-qualified bench will be chosen to provide project oversight and management, plan checking, inspection, QA/QC services, and any other services deemed necessary to ensure peer review. It is the intent of the City to develop a comprehensive bench of pre-qualified contractors that can work in synergy to deliver the large number of projects that are included in the City's Capital Improvement Program, while introducing transparency in the procurement process. It is also critical for the City that multiple checks and balances are in place to ensure that the City's funds are used efficiently and that projects are built on-time and under budget. Services to be provided under this Request for Qualifications include, but are not necessarily limited to, the following:

1. **Staff Augmentation**: Engineering, QA/QC, Safety Assurance, Plan Checking, Inspection, Project Management, Value Engineering, GIS, Project Accounting, Utility Coordination and other staff augmentation services as deemed necessary.
2. **Civil Engineering** Plans, Specifications and Estimates, CADD, Design topo and Mapping/Cadastral Services.
3. **Structural Engineering** Services.
4. **Project Management/Construction Management**, Public Bidding Process Coordination, Closeout and Audits.
5. **Geotechnical Engineering** Services.
6. **Survey and Right of Way Engineering**.
7. **Traffic and Transportation Engineering** – including Railroad, Bicycle, Pavement, Pedestrian and Human Factors.
8. **Contract and Funding Administration**, including oversight and reporting.
9. **Permit Inspections** (NPDES, MS4) as needed and Sanitary Sewer Design, Plans, Inspections, and System Capacity Calculations.
10. **Potable Water, Recycled Water, and Stormwater Design**, Plans and Specifications.
11. **Electrical Engineering**, including Electrical Utility Design, Plans and Specifications – including PV and alternative energy generation.
12. **Internet and Data Utility Design**, Plans and Specifications.
13. **Landfill Management Design**, Plans and Specifications.
14. **ADA and CASp support**.
15. **Environmental Engineering**, staff support and reporting for open space and habitat areas.

SECTION 3
CONTRACTOR QUALIFICATIONS AND REQUIREMENTS

General Qualifications and Requirements

In order to be considered, Proposers must meet the requirements outlined in this section. Proposers that do not meet the requirements will be considered non-responsive and their submittal will be rejected.

1. **Experience.** The selected individual(s)/Contractor(s) will have extensive experience that shows the Contractor(s) can provide professional, first-class service.

2. **Principal.** The account manager, or contact person, assigned to the City will be a consideration in the selection. Qualifications and prior experience in similar programs and activities must be demonstrated in the proposal. Once selected, the account manager, or contact person, assigned to the project or contract shall not be changed without prior written consent of the City. An organizational chart, if applicable, shall be submitted with the proposal.

3. **Appropriate Licenses or certifications.** Contractor is required to have in full force and affect all licenses and permits required by all applicable laws.

4. **Insurance.** The following are the legal and insurance requirements of the City of Industry for the selected Contractor. They are non-negotiable. The detailed insurance requirements are included in Exhibit A:

   a) Time for Compliance. Contractor shall not commence work under this Agreement until it has provided evidence satisfactory to the City that it has secured all insurance required under this section. In addition, Contractor shall not allow any subcontractor to commence work on any subcontract until it has provided evidence satisfactory to the City that the subcontractor has secured all insurance required under this section.

   b) Minimum Requirements. Contractor shall, at its expense, procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Agreement by the Contractor, its agents, representatives, employees or subcontractors. Contractor shall also require all of its subcontractors to procure and maintain the same insurance for the duration of the Agreement. Such insurance shall meet at least the following minimum levels of coverage:

      1. Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) *General Liability*: Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001); (2) *Automobile Liability*: Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto); and (3) *Workers' Compensation and*

Employer's Liability: Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

2. Minimum Limits of Insurance. Contractor shall maintain limits no less than: (1) *General Liability:* $1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with general aggregate limit is used, either the general aggregate limit shall apply separately to this Agreement/location or the general aggregate limit shall be twice the required occurrence limit; (2) *Automobile Liability:* $1,000,000 per accident for bodily injury and property damage; and (3) *Workers' Compensation and Employer's Liability:* Workers' Compensation limits as required by the Labor Code of the State of California. Employer's Liability limits of $1,000,000 per accident for bodily injury or disease.

SECTION 4
PROPOSAL SUBMITTAL REQUIREMENTS

Submittal Format and Content

1. The submittal should be typed and as brief as possible while adequately describing the qualifications of the Contractor.

2. Only one proposal per Contractor will be considered, and the Contractor must clearly state all of the subject areas of expertise: **Staff Augmentation, Civil Engineering, Structural Engineering, Project Management/Construction Management, Geotechnical Engineering, Survey and Right of Way Engineering, Traffic and Transportation Engineering, Contract and Funding Administration, Permit Inspections, Potable Water, Recycle Water and Stormwater Design, Electrical Engineering, Internet and Data Utility Design, Landfill Management Design, ADA and CASp Support, and/or Environmental Engineering**.

3. The proposing Contractor shall submit the following information with the package, including the same information on subcontractors, in the following format:

   a. **Cover Letter.** In no more than two (2) pages, the Contractor should provide the name, address and phone number of the Consultant, the primary contact name and phone number, any qualifying statements or comments regarding the proposal and identification of any sub-consultants and their responsibilities. The signed letter should also include a paragraph stating that the Contractor is unaware of any conflict of interest in performing the proposed work.

   b. **Qualifications.** This portion should include a description of the qualifications of the assigned staff and sub-contractors, relevant technical experience, and the availability of the staff for the services provided. After selection of a Contractor(s) by the City, no substitution of key staff or subcontractors may occur without the written approval of the City. A list of related projects should be included with the name of the contract person and the telephone number for which the Contractor has recently or currently provides services as outlined under the Scope of Work.

   c. **Scope of Work.** The Contractor shall describe the proposed work by task, including any tasks to be performed by sub-contractors.

   d. **Project Fees.** Proposing Contractors must submit a sealed hourly fee proposal that includes a schedule of fees for all pertinent employees proposed for the project. Fee schedules for contractors that are not chosen will not be opened. Hourly rates are not a deciding factor in the award. It is expected that the hourly rates submitted will remain fixed for the duration of the contract, which is projected to be a three (3) year term.

   e. **Acceptance of Conditions.** This section will be a statement offering the Contractor's acceptance of all conditions listed in the Request for Qualifications document. Any

exceptions or suggested changes to the RFQ or any contractual obligations, including the suggested change, the reasons therefore and the impact it may have on cost or other considerations on the Contractor's behalf must be stated in the submittal. Unless specifically noted by the Contractor, the City will assume that the submittal is in compliance with all aspects of the RFQ.

Evaluation and Selection Process

Selection will follow these steps:

1. **Submittal Review**: Each submittal will be reviewed to determine if it meets the RFQ requirements. Failure to meet the requirements of the RFQ will be cause for rejection. The City will consider the following in selecting a contractor(s).

   Response to requested Scope of Services and this RFQ;
   Professional reputation;
   Experience of the Contractor;
   Qualifications;
   Number and experience of personnel;
   References provided.

2. **Interview.** Contractors may be interviewed by an oral board.

3. **Professional Services Agreement.** The Director of Development Services and Administration will request a professional services agreement subject to negotiation of precise work program, terms of payment and other City requirements from the Contractor(s) found most qualified. Nothing in this RFQ should imply a contractual obligation for employment.

4. **Contract Approval and Execution.** The agreement will be presented to the City of Industry City Council for approval and execution by the City Manager.

Please submit the proposal **no later than 1:00 p.m., on Wednesday, October 12, 2016** via City of Industry PlanetBids™ vendor portal http://www.cityofindustry.org/?p=proposal-and-bid.

Attachment 1

City of Industry
Professional Services Agreement

This PROFESSIONAL SERVICES AGREEMENT ("Agreement"), is made and effective as of INSERT DATE ("Effective Date"), between the City of Industry, a municipal corporation ("City") and INSERT NAME OF CONSULTANT AND TYPE OF LEGAL ENTITY [i.e.-limited liability company, corporation, partnership, etc.]("Consultant"). The City and Consultant are hereinafter collectively referred to as the "Parties".

RECITALS

WHEREAS, City desires to engage Consultant to perform the services described herein, and Consultant desires to perform such services in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions herein contained, City and Consultant agree as follows:

1. TERM

This Agreement shall commence on the Effective Date, and shall remain and continue in effect until tasks described herein are completed, but in no event later than INSERT DATE, unless sooner terminated pursuant to the provisions of this Agreement.

2. SERVICES

(a) Consultant shall perform the tasks ("Services") described and set forth in Exhibit A, attached hereto and incorporated herein as though set forth in full. ("Scope of Services"). Tasks other than those specifically described in the Scope of Services shall not be performed without prior written approval of the City. The Services shall be performed by Consultant, unless prior written approval is first obtained from the City. In the event of conflict or inconsistency between the terms of this Agreement and Exhibit A, the terms of this Agreement shall prevail.

(b) City shall have the right to request, in writing, changes to the Services. Any such changes mutually agreed upon by the Parties, and any corresponding increase or decrease in compensation, shall be incorporated by written amendment to this Agreement.

(c) Consultant shall perform all Services in a manner reasonably satisfactory to the City and in a first-class manner in conformance with the standards of quality normally observed by an entity providing INSERT TYPE OF SERVICES, serving a municipal agency.

(d) Consultant shall comply with all applicable federal, state, and local laws, regulations and ordinances in the performance of this Agreement, including but not limited to, the conflict of interest provisions of Government Code Section 1090 and the Political Reform Act (Government Code Section 81000 *et seq.*)). During the term of this Agreement, Consultant shall not perform any work for another person or entity for whom Consultant was not working on the Effective Date if both (i) such work would

require Consultant to abstain from a decision under this Agreement pursuant to a conflict of interest statute or law; and (ii) City has not consented in writing to Consultant's performance of such work. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* Consultant hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Consultant was an employee, agent, appointee, or official of the City in the previous twelve (12) months, Consultant warrants that it did not participate in any manner in the forming of this Agreement. Consultant understands that, if this Agreement is made in violation of Government Code §1090 *et. seq.*, the entire Agreement is void and Consultant will not be entitled to any compensation for Services performed pursuant to this Agreement, and Consultant will be required to reimburse the City for any sums paid to the Consultant. Consultant understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

(e) Consultant represents that it has, or will secure at its own expense, all licensed personnel required to perform the Services. All Services shall be performed by Consultant or under its supervision, and all personnel engaged in the Services shall be qualified and licensed to perform such services.

3. MANAGEMENT

City's INSERT STAFF RESPONSIBLE FOR THE PROJECT shall represent the City in all matters pertaining to the administration of this Agreement, review and approval of all products submitted by Consultant, but shall have no authority to modify the Services or the compensation due to Consultant.

4. PAYMENT

(a) The City agrees to pay Consultant monthly, in accordance with the payment rates and terms and the schedule of payment as set forth in Exhibit B ("Rate Schedule"), attached hereto and incorporated herein by this reference as though set forth in full, based upon actual time spent on the above tasks. This amount shall not exceed INSERT WRITTEN DOLLAR AMOUNT dollars ($) for the total Term of the Agreement unless additional payment is approved as provided in this Agreement.

(b) Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement which are in addition to those set forth herein, unless such additional services are authorized in advance and in writing by the City. Consultant shall be compensated for any additional services in the amounts and in the manner as agreed to by City and Consultant at the time City's written authorization is given to Consultant for the performance of said services.

(c) Consultant shall submit invoices monthly for actual services performed. Invoices shall be submitted on or about the first business day of each month, or as soon thereafter as practical, for services provided in the previous month. Payment shall be made within thirty (30) days of receipt of each invoice as to all non-disputed fees. If the City disputes any of Consultant's fees it shall give written notice to Consultant within thirty (30) days of receipt of an invoice of any disputed fees set forth on the invoice. Any final payment under this Agreement shall be made within 45 days of receipt of an invoice therefore.

5. LABOR CODE AND PREVAILING WAGES

(a) Consultant represents and warrants that it is aware of the requirements of California Labor Code Section 1720, *et seq.*, and 1770, *et seq.*, as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "Public Works" and "Maintenance" projects. If the Services are being performed as part of an applicable "Public Works" or "Maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $15,000.00 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. City shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant's principal place of business and any location where the Services are performed. Consultant shall indemnify, defend and hold harmless, the City, its elected officials, officers, employees and agents, from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, Consultant's or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant, failure or alleged failure to comply with Prevailing Wage Laws.

(b) In accordance with the requirements of Labor Code Section 1776, Consultant shall keep accurate payroll records which are either on forms provided by the Division of Labor Standards Enforcement or which contain the same information required by such forms. Consultant shall make all such records available for inspection at all reasonable hours.

(c) To the extent applicable, Cosultant shall comply with the provisions of Section 1777.5 of the Labor Code with respect to the employment of properly registered apprentices upon public works.

(d) Consultant shall comply with the legal days work and overtime requirements of Sections 1813 and 1815 of the Labor Code.

(e) If the Services are being performed as part of an applicable Public works or Maintenance project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants performing such Services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Agreement and require the same of any subconsultants, as applicable. This Services set forth in this Agreement may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements.

6. SUSPENSION OR TERMINATION OF AGREEMENT

(a) The City may at any time, for any reason, with or without cause, suspend or terminate this Agreement, or any portion hereof, by serving upon the Consultant at least ten (10) days prior written notice. Upon receipt of said notice, the Consultant shall immediately cease all work under this Agreement, unless the notice provides otherwise. If the City suspends or terminates a portion of this Agreement such suspension or termination shall not make void or invalidate the remainder of this Agreement.

(b) In the event this Agreement is terminated pursuant to this Section, the City shall pay to Consultant the actual value of the work performed up to the time of termination, provided that the

work performed is of value to the City. Upon termination of the Agreement pursuant to this Section, the Consultant shall submit an invoice to the City pursuant to Section 5 of this Agreement.

7. OWNERSHIP OF DOCUMENTS

(a) Consultant shall maintain complete and accurate records with respect to sales, costs, expenses, receipts, and other such information required by City that relate to the performance of services under this Agreement. Consultant shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Consultant shall provide free access to the representatives of City or its designees at reasonable times to review such books and records; shall give City the right to examine and audit said books and records; shall permit City to make transcripts or copies therefrom as necessary; and shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement. Such records, together with supporting documents, shall be maintained for a period of three (3) years after receipt of final payment.

(b) Upon completion of, or in the event of termination or suspension of this Agreement, all original documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared in the course of providing the services to be performed pursuant to this Agreement shall become the sole property of the City and may be used, reused, or otherwise disposed of by the City without the permission of the Consultant. With respect to computer files, Consultant shall make available to the City, at the Consultant's office, and upon reasonable written request by the City, the necessary computer software and hardware for purposes of accessing, compiling, transferring, copying and/or printing computer files. Consultant hereby grants to City all right, title, and interest, including any copyright, in and to the documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared by Consultant in the course of providing the services under this Agreement. All reports, documents, or other written material developed by Consultant in the performance of the Services pursuant to this Agreement, shall be and remain the property of the City.

8. INDEMNIFICATION

(a) Indemnity for professional liability

When the law establishes a professional standard of care for Consultant's Services, to the fullest extent permitted by law, Consultant shall indemnify, protect, defend and hold harmless the City and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses, including legal counsel's fees and costs caused in whole or in part by any negligent or wrongful act, error or omission of Consultant, its officers, agents, employees or Subconsultants (or any agency or individual that Consultant shall bear the legal liability thereof) in the performance of professional services under this Agreement.

(b) Indemnity for other than professional liability

Other than in the performance of professional services and to the full extent permitted by law, Consultant shall indemnify, defend and hold harmless City, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this

Agreement by Consultant or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant.

(c) DUTY TO DEFEND. In the event the City, its officers, employees, agents and/or volunteers are made a party to any action, claim, lawsuit, or other adversarial proceeding arising from the performance of the services encompassed by this Agreement, and upon demand by City, Consultant shall have an immediate duty to defend the City at Consultant's cost or at City's option, to reimburse the City for its costs of defense, including reasonable attorney's fees and costs incurred in the defense of such matters.

Payment by City is not a condition precedent to enforcement of this indemnity. In the event of any dispute between Consultant and City, as to whether liability arises from the sole negligence of the City or its officers, employees, or agents, Consultant will be obligated to pay for City's defense until such time as a final judgment has been entered adjudicating the City as solely negligent. Consultant will not be entitled in the absence of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

9. INSURANCE

Consultant shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit C attached hereto and incorporated herein by reference.

10. INDEPENDENT CONSULTANT

(a) Consultant is and shall at all times remain as to the City a wholly independent consultant and/or independent contractor. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultants exclusive direction and control. Neither City nor any of its officers, employees, or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that it or any of its officers, employees, or agents are in any manner officers, employees, or agents of the City. Consultant shall not incur or have the power to incur any debt, obligation, or liability whatever against the City, or bind the City in any manner.

(b) No employee benefits shall be available to Consultant in connection with the performance of this Agreement. Except for the fees paid to Consultant as provided in the Agreement, City shall not pay salaries, wages, or other compensation to Consultant for performing services hereunder for City. City shall not be liable for compensation or indemnification to Consultant for injury or sickness arising out of performing services hereunder.

11. LEGAL RESPONSIBILITIES

The Consultant shall keep itself informed of State and Federal laws and regulations which in any manner affect those employed by it or in any way affect the performance of its service pursuant to this Agreement. The Consultant shall at all times observe and comply with all such laws and regulations. The City, and its officers and employees, shall not be liable at law or in equity occasioned by failure of the Consultant to comply with this Section.

12. UNDUE INFLUENCE

Consultant declares and warrants that no undue influence or pressure was used against or in concert with any officer or employee of the City in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential financial arrangement, or financial inducement. No officer or employee of the City has or will receive compensation, directly or indirectly, from Consultant, or from any officer, employee or agent of Consultant, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section shall be a material breach of this Agreement entitling the City to any and all remedies at law or in equity.

13. NO BENEFIT TO ARISE TO LOCAL OFFICERS AND EMPLOYEES

No member, officer, or employee of City, or their designees or agents, and no public official who exercises authority over or responsibilities with respect to the Project during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement, or the proceeds thereof, for work to be performed in connection with the Project performed under this Agreement.

14. RELEASE OF INFORMATION/CONFLICTS OF INTEREST

(a) All information gained by Consultant in performance of this Agreement shall be considered confidential and shall not be released by Consultant without City's prior written authorization. Consultant, its officers, employees, agents, or subconsultants, shall not without written authorization from the City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the work performed under this Agreement or relating to any project or property located within the City, unless otherwise required by law or court order. (b) Consultant shall promptly notify City should Consultant, its officers, employees, agents, or subconsultants be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions, or other discovery request ("Discovery"), court order, or subpoena from any person or party regarding this Agreement and the work performed there under or with respect to any project or property located within the City, unless Consultant is prohibited by law from informing the City of such Discovery, court order or subpoena. City retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding as allowed by law. Unless City is a party to the lawsuit, arbitration, or administrative proceeding and is adverse to Consultant in such proceeding, Consultant agrees to cooperate fully with the City and to provide the opportunity to review any response to discovery requests provided by Consultant. However, City's right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

15. NOTICES

Any notices which either party may desire to give to the other party under this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, which provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, addressed to the address of the party as set forth below or at any other address as that party may later designate by notice:

To City: City of Industry
15625 E. Stafford, Suite 100
City of Industry, CA 91744

Attention: City Manager

With a Copy To: James M. Casso, City Attorney
Casso & Sparks, LLP
13200 Crossroads Parkway North, Suite 345
City of Industry, CA 91746

To Consultant: _____
_____
_____

16. ASSIGNMENT

The Consultant shall not assign the performance of this Agreement, nor any part thereof, nor any monies due hereunder, without prior written consent of the City.

Before retaining or contracting with any subconsultant for any services under this Agreement, Consultant shall provide City with the identity of the proposed subconsultant, a copy of the proposed written contract between Consultant and such subconsultant which shall include and indemnity provision similar to the one provided herein and identifying City as an indemnified party, or an incorporation of the indemnity provision provided herein, and proof that such proposed subconsultant carries insurance at least equal to that required by this Agreement or obtain a written waiver from the City for such insurance.

Notwithstanding Consultant's use of any subconsultant, Consultant shall be responsible to the City for the performance of its subconstultant as it would be if Consultant had performed the Services itself. Nothing in this Agreement shall be deemed or construed to create a contractual relationship between the City and any subconsultant employed by Consultant. Consultant shall be solely responsible for payments to any subconsultants. Consultant shall indemnify, defend and hold harmless the Indemnified Parties for any claims arising from, or related to, the services performed by a subconsultant under this Agreement.

17. GOVERNING LAW/ATTORNEYS' FEES

The City and Consultant understand and agree that the laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement and also govern the interpretation of this Agreement. Any litigation concerning this Agreement shall take place in the municipal, superior, or federal district court in Los Angeles County, California. If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of or relating to the Services provided by Consultant under this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and all related costs, including costs of expert witnesses and consultants, as well as costs on appeal, in addition to any other relief to which it may be entitled.

18. ENTIRE AGREEMENT

This Agreement contains the entire understanding between the Parties relating to the obligations of the Parties described in this Agreement. All prior or contemporaneous agreements, understandings, representations, and statements, oral or written and pertaining to the subject of this Agreement or with respect to the terms and conditions of this Agreement, are merged into this Agreement and shall be of no further force or effect. Each party is entering into this Agreement

based solely upon the representations set forth herein and upon each party's own independent investigation of any and all facts such party deems material.

19. SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

20. COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

21. CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

22. WAIVER

The waiver by City or Consultant of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Consultant unless in writing.

23. REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

24. AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Consultant represents and warrants that he/she has the authority to execute this Agreement on behalf of the Consultant and has the authority to bind Consultant to the performance of its obligations hereunder.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the Effective Date.

"CITY"	**"CONSULTANT"**
City of Industry	INSERT NAME OF COMPANY

By:_____ By_____

Paul Philips, City Manager Name, Title

Attest:

By:_____

Cecelia Dunlap, Deputy City Clerk

Approved as to form:

By:_____

James M. Casso, City Attorney

Attachments:	Exhibit A	Scope of Services
	Exhibit B	Rate Schedule
	Exhibit C	Insurance Requirements

EXHIBIT A

SCOPE OF SERVICES

EXHIBIT B

RATE SCHEDULE

EXHIBIT C

INSURANCE REQUIREMENTS

Without limiting Consultant's indemnification of City, and prior to commencement of the Services, Consultant shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to Agency.

General liability insurance. Consultant shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $1,000,000.00 per occurrence, $2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Consultant shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Consultant arising out of or in connection with Work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000.00 combined single limit for each accident.

Professional liability (errors & omissions) insurance. Consultant shall maintain professional liability insurance that covers the Services to be performed in connection with this Agreement, in the minimum amount of $1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this agreement and Consultant agrees to maintain continuous coverage through a period no less than three years after completion of the services required by this agreement.

Workers' compensation insurance. Consultant shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000.00).

Consultant shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of Agency, its officers, agents, employees and volunteers.

Proof of insurance. Consultant shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this contract. City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the Services hereunder by Consultant, his agents, representatives, employees or subconsultants.

Primary/noncontributing. Coverage provided by Consultant shall be primary and any insurance or self-insurance procured or maintained by City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Consultant, or City will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Consultant acknowledges and agrees that any actual or alleged failure on the part of the City to inform Consultant of non-compliance with any requirement imposes no additional obligations on the Agency nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Consultant agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Consultant agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by

Consultant, provide the same minimum insurance coverage and endorsements required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Consultant agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise specifications. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Consultant ninety (90) days advance written notice of such change. If such change results in substantial additional cost to the Consultant, the City and Consultant may renegotiate Consultant's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Consultant shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from Consultant's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Consultant shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

September 21, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

RFQ Addendum No. 1

CITY OF INDUSTRY

REQUEST FOR QUALIFICATIONS ("RFQ") FOR ENGINEERING SERVICES BENCH

CONTRACT NO. 2016-1002

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original "Request for Qualifications" (RFQ).

All other terms and conditions remain unchanged.

REQUEST FOR QUALIFICATIONS

SECTION 4, PROPOSAL SUBMITTAL REQUIREMENTS, PAGE 8, D. PROJECT FEES, Proposing Contractors must upload and submit a sealed hourly fee proposal that includes a schedule of fees for all pertinent employees proposed for the project via the City of Industry's Planet Bids vendor portal. All sealed hourly fee proposal files shall be uploaded as a separate file from the Statement of Qualifications and shall be clearly marked "Hourly Fee Proposal" in the file name.

END OF ADDENDUM

September 21, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

RFQ Addendum No. 2

CITY OF INDUSTRY

REQUEST FOR QUALIFICATIONS ("RFQ") FOR ENGINEERING SERVICES BENCH

CONTRACT NO. 2016-1002

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original "Request for Qualifications" (RFQ).

All other terms and conditions remain unchanged.

REQUEST FOR QUALIFICATIONS

SECTION 4, PROPOSAL SUBMITTAL REQUIREMENTS, PAGE 8,

3. The proposing Contractor shall submit the following information with the package, in the following format:

A. COVER LETTER, the first sentence shall read: In no more than two (2) pages, the Contractor should provide the name, address and phone number of the Consultant, the primary contact name and phone number, any qualifying statements or comments regarding the proposal and identification of their responsibilities.

B. QUALIFICATIONS. This portion should include a description of the qualifications of the assigned staff, relevant technical experience, and the availability of the staff for the services provided. After selection of a Contractor(s) by the City, no substitution of key staff may occur without the written approval of the City. A list of related projects should be included with the name of the contract person and

the telephone number for which the Contractor has recently or currently provides services as outlined under the Scope of Work.

C. **SCOPE OF WORK.** The Contractor shall briefly describe the proposed work that would be performed for the engineering services category submitting. However, the City would like firms to submit individually based on their experience and in-house qualifications.

END OF ADDENDUM

October 6, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

RFQ Addendum No. 3

CITY OF INDUSTRY

REQUEST FOR QUALIFICATIONS ("RFQ") FOR ENGINEERING SERVICES BENCH

CONTRACT NO. 2016-1002

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original "Request for Qualifications" (RFQ).

All other terms and conditions remain unchanged.

REQUEST FOR QUALIFICATIONS

COVER PAGE, SCHEDULE AND PROCESS,

Contractor Interview (if desired by City) October 17 – November 4, 2016.

PAGE 9, EVALUATION AND SELECTION PROCESS, 2. INTERVIEW,

Contractors submitting for consideration to provide Staff Augmentation services may be interviewed by an oral board. All other subject areas of expertise will not be interviewed.

END OF ADDENDUM

EXHIBIT C

Statement of Qualifications Received from Contractors in Response to Request for Qualifications (RFQ) for Engineering Services Bench

(on file in City of Industry City Clerk's Office)

CITY COUNCIL

ITEM NO. 6.6

CITY COUNCIL

ITEM NO. 6.6

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Alex Gonzalez, Director of Development Services and Administration
William Hayes, Field Operations and Asset Superintendent
Kristen Weger, Administrative Analyst

Date: December 8, 2016

SUBJECT: Consideration of an Agreement for Construction Services with All American Contracting Corporation for Interior Upgrades and Code Compliance Repairs at 16200-5 Temple Avenue in an amount not to exceed $359,106.00

On September 8, 2016, the City Council approved the development and release of an RFP for property repairs, including the mitigation of safety and code compliance issues at 16200-5 Temple Avenue (agenda item attached as Exhibit D) in compliance with City of Industry Municipal Code Section 3.52.040(A) after informal bidding indicated that project costs would meet or exceed $125,000.

As the City has a duty to ensure that all of its existing properties are in compliance with applicable building and safety codes, the City's capital improvement program is structured to ensure that deferred maintenance, incomplete projects, damaged and abandoned properties, and health and safety issues be addressed at all City owned properties in a systematic manner over the next three fiscal years.

On November 10, 2016, the City of Industry released a Request for Proposals ("RFP") for Interior Upgrades and Code Compliance Repairs at 16200-5 Temple Avenue via the City of Industry's PlanetBids procurement portal. Per the Uniform Construction Cost Accounting Act procedures set forth in Article 2, Section 22034, forty-seven (47) qualified vendors were notified of the RFP. A mandatory site walk-through was held on Friday, November 18, 2016 at 10:00am with four (4) vendors participating in a job walk. Questions were received from proposers up until Tuesday, November 22, 2016 at 2:00 pm.

Proposals were due to the City via PlanetBids by Monday, November 28, 2016, at 4:00 pm. The City received three (3) proposals from All American Construction Corporation, Corner Keystone Construction Corporation and George Line Construction. Table 1 below lists the proposal results.

Table 1 – Proposal Summary

Contractor	Amount
All American Contracting Corporation	$ 359,106.00
Corner Keystone Construction Corporation	$ 322,131.46
George Line Construction	$ 457,831.00

Staff reviewed Corner Keystone Construction Corporations project history and completed reference checks on the contractor. Based on the scope and size of the projects that were reported as completed by the contractor in their submittal, and the related reference checks, staff determined that Corner Keystone Construction Corporation may not have the necessary experience required to successfully complete a project of this size and scope under the desired schedule. Staff then considered All American Contracting Corporation.

Staff completed a reference check for All American Contracting Company by contacting three (3) references. All references contacted confirmed that All American Contracting Corporation had successfully completed the project listed for their representative companies. The companies contacted reported that they were satisfied with the contractor's performance, and references uniformly noted that they would consider the contractor for future projects. The projects reported by All American Contracting Company in their submittal were similar in size and scope to this project.

It is the determination of staff, based on the submittals received, that a rejection of all proposals and a re-procurement of the project would produce similar bid results.

Fiscal Impact

The project will be supported by the 2015 Sales Tax Revenue Bond proceeds. An appropriation shall be made to 16200-5 Temple Avenue Construction Costs (account no. 120-716-5205) to cover the costs of the project.

Recommendation

1.) Based on the proposal and reference check, staff recommends that All American Contracting Corporation be awarded an Agreement for Construction Services in an amount not to exceed $359,106.00 as the lowest responsible bidder; and
2.) Appropriate $359,106.00 to 16200-5 Temple Avenue Construction Costs (account no. 120-716-5205).

Upon City Council approval and execution of the attached Agreement for Construction Services and the issuance of a Notice to Proceed, All American Contracting Corporation is prepared to begin the project on December 12, 2016.

Exhibits
A. Agreement for Construction Services with All American Contracting Corporation in an amount not to exceed $359,106.00

B. Price Comparison for Proposals Received from All American Contracting Corporation, Corner Keystone Construction Corporation and George Line Construction on November 28, 2016

C. Request for Proposals ("RFP") for Interior Upgrades and Code Compliance Repairs at 16200-5 Temple Avenue

D. City Council Agenda Item dated September 8, 2016

PJP:AG:WH:KW:mk

EXHIBIT A

Agreement for Construction Services with All American Contracting Corporation in an amount not to exceed $359,106.00

[Attached]

CITY OF INDUSTRY

AGREEMENT FOR CONSTRUCTION SERVICES

This AGREEMENT FOR CONSTRUCTION SERVICES ("Agreement"), is made and effective as of December 8, 2016 ("Effective Date"), between the City of Industry, a municipal corporation ("City") and All American Contracting Corp., a California corporation ("Contractor"). The City and Contractor are hereinafter collectively referred to as the "Parties".

In consideration of the mutual covenants and conditions set forth herein, the Parties agree as follows:

ARTICLE 1 - SCOPE OF WORK

The Contractor shall perform within the time set forth in Article 2 of this Agreement and shall furnish all labor, materials, equipment, tools, utility services, and transportation and perform and complete all work required in connection with the construction interior upgrades and code compliance repairs at 16200-5 Temple Avenue (hereinafter "Project").

By entering into this Agreement, Contractor acknowledges that there may be other contractors on the site whose work will be coordinated with that of its own. Contractor expressly warrants and agrees that it will cooperate with other contractors and will do nothing to delay, hinder, or interfere with the work of other separate contractors, the City, the Construction Manager, the Architect, or utilities. Contractor also expressly agrees that, in the event its work is hindered, delayed, interfered with, or otherwise affected by a separate contractor, its sole remedy will be a direct action against the separate contractor. To the extent allowed by law, the Contractor will have no remedy, and hereby expressly waives any remedy against the City or the architect on account of delay, hindrance, interference or other events caused by a separate contractor.

ARTICLE 2 - TIME FOR PROJECT COMPLETION

All of Contractor's work on the Project shall be completed within durations established for the individual activities as set forth in the Project Construction Schedule. All work shall commence ten (10) calendar days after receiving a written Notice of Award from the City. Contractor shall refer to the Notice Inviting Bids, and Project Plans and Specifications, all of which, as set forth below, are incorporated herein by reference, for contractual obligations regarding individual activity durations. The aggregate sum total work of all individual prime contractors to the City comprises the entire "Project" and shall be commenced and completed in conformance with the Project Construction Schedule. The entire Project shall be completed within 45 working calendar days ("Contract Time").

ARTICLE 3 - THE CONTRACT SUM

The City shall pay to the Contractor for the performance of this Agreement, subject to any additions and deductions provided in the Project documents, the sum of Three Hundred Fifty-Nine Thousand One Hundred Six Dollars ($359,106.00) ("Contract Sum").

ARTICLE 4 - PROGRESS PAYMENTS

Based upon applications for payment submitted by the Contractor, the City shall make progress payments on account of the Contract Sum to the Contractor as provided in the General Conditions.

ARTICLE 5 - RETENTION OF SECURITIES

Public Contract Code Section 22300 permits the substitution of securities for any monies withheld by a public agency to ensure performance under a contract, at the request and expense of the Contractor.

ARTICLE 6 – INDEMNITY, DEFENSE AND HOLD HARMLESS AGREEMENT

Contractor shall indemnify, defend with legal counsel approved by City, and hold harmless City, its officers, officials, employees and volunteers from and against all liability, loss, damage, expense, cost (including without limitation reasonable legal counsel fees, expert fees and all other costs and fees of litigation) of every nature arising out of or in connection with Contractor's negligence, recklessness or willful misconduct in the performance of work hereunder or its failure to comply with any of its obligations contained in this agreement, except such loss or damage which is caused by the sole or active negligence or willful misconduct of the City. Should conflict of interest principles preclude a single legal counsel from representing both City and Contractor, or should City otherwise find Contractor's legal counsel unacceptable, then Contractor shall reimburse the City its costs of defense, including without limitation reasonable legal counsels fees, expert fees and all other costs and fees of litigation. The Contractor shall promptly pay any final judgment rendered against the City (and its officers, officials, employees and volunteers) with respect to claims determined by a trier of fact to have been the result of the Contractor's negligent, reckless or wrongful performance. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this Agreement.

Contractor obligations under this section apply regardless of whether or not such claim, charge, damage, demand, action, proceeding, loss, stop notice, cost, expense, judgment, civil fine or penalty, or liability was caused in part or contributed to by an Indemnitee. However, without affecting the rights of City under any provision of this agreement, Contractor shall not be required to indemnify and hold harmless the City for liability attributable to the active negligence of the City, provided such active negligence

is determined by agreement between the Parties or by the findings of a court of competent jurisdiction. In instances where the City is shown to have been actively negligent and where City's active negligence accounts for only a percentage of the liability involved, the obligation of Contractor will be for that entire portion or percentage of liability not attributable to the active negligence of the City.

ARTICLE 7 - PREVAILING WAGES

A. Wage rates for this Project shall be in accordance with the "General Wage Determination Made By the Director of Industrial Relations Pursuant To California Labor Code, Part 7, Chapter 1, Article 2, Sections 1770, 1773 and 1773.1 ", for Los Angeles County. Wage rates shall conform with those posted at City Hall and the Project site.

B. The following Labor Code sections are hereby referenced and made a part of this Agreement:

1. Section 1775, Penalty for Failure to Comply with Prevailing Wage Rates.
2. Section 1777.4, Apprenticeship Requirements.
3. Section 1777.5, Apprenticeship Requirements.
4. Section 1813, Penalty for Failure to Pay Overtime.
5. Section 1810 and 1811, Working Hour Restrictions.
6. Section 1775, Payroll Records.
7. Section 1773.8, Travel and Subsistence Pay.

ARTICLE 8 - RECORD AUDIT

In accordance with Government Code, Section 8546.7, records of both the City and the Contractor shall be subject to examination and audit by the Auditor General for a period of three (3) years after final payment.

ARTICLE 9 - CERTIFICATIONS

At the time of submission of the proposal and thereafter, each proposal must be licensed as a **Class B General Building Contractor** as defined in Sections 7055-7058 of the Business and Professions Code.

ARTICLE 10 - FINAL PAYMENT

Final payment, constituting the entire unpaid balance of the Contract Sum, shall be paid by the City to the Contractor no sooner than thirty-five (35) days after a Notice of Completion has been recorded, unless otherwise stipulated in the Notice of Completion, provided the work has then been completed, and the Agreement fully performed.

ARTICLE 11 - CONTRACTOR'S FAILURE TO PROCURE COMPLETION OF PROJECT

In the event Contractor fails to furnish tools, equipment, or labor in the necessary quantity or quality, or fails to prosecute the work or any part thereof contemplated by this Agreement in a diligent and workmanlike manner, and if the Contractor for a period of three (3) calendar days after receipt of written demand from City or its designated representative to do so, fails to furnish tools, equipment, or labor in the necessary quantity or quality, and to prosecute its work and all parts thereof in a diligent and workmanlike manner, or after commencing to do so within said three (3) calendar days, fails to continue to do so; then the City may exclude the Contractor from the premises, or any portion thereof, and take possession of said premises or any portion thereof, together with all material and equipment thereon, and may complete the work contemplated by this Agreement or any portion of said work, either by furnishing the tools, equipment, labor or material necessary, or by letting the unfinished portion of said work, or the portion taken over by the City to another contractor or by a combination of such methods. In any event, the procuring of the completion of said work, or the portion thereof taken over by the City, shall be a charge against the Contractor, and may be deducted from any money due or becoming due to Contractor from the City, or the Contractor shall pay the City the amount of said charge, or the portion thereof unsatisfied. The sureties, provided for under this Agreement shall become liable for payment should Contractor fail to pay in full any said cost incurred by the City.

ARTICLE 12 –INSURANCE

Prior to the beginning of and throughout the duration of the Project, Contractor and its subcontractors shall maintain insurance in conformance with the requirements set forth below. Contractor will use existing coverage to comply with these requirements. If that existing coverage does not meet the requirements set forth herein, Contractor agrees to amend, supplement or endorse the existing coverage to do so.

Contractor acknowledges that the insurance coverage and policy limits set forth in this section constitute the minimum amount of coverage required. Any insurance proceeds available to Contractor or its subcontractors in excess of the limits and coverage identified in this Agreement and which is applicable to a given loss, claim or demand, will be equally available to the City.

A. Contractor shall provide the following types and amounts of insurance:

Without limiting Contractor's indemnification of City, and prior to commencement of the Project, Contractor shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to the City.

General liability insurance. Contractor shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $5,000,000 per occurrence, $10,000,000 general aggregate, for bodily injury, personal injury, and property damage, and a $5,000,000 completed operations aggregate. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Contractor shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Contractor arising out of or in connection with work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000 combined single limit for each accident.

Umbrella or excess liability insurance. Contractor shall obtain and maintain an umbrella or excess liability insurance that will provide bodily injury, personal injury and property damage liability coverage at least as broad as the primary coverages set forth above, including commercial general liability and employer's liability Such policy or policies shall include the following terms and conditions:

- A drop down feature requiring the policy to respond in the event that any primary insurance that would otherwise have applied proves to be uncollectable in whole or in part for any reason;
- Pay on behalf of wording as opposed to reimbursement;
- Concurrency of effective dates with primary policies; and
- Policies shall "follow form" to the underlying primary policies.
- Insureds under primary policies shall also be insureds under the umbrella or excess policies.

Workers' compensation insurance. Contractor shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000) for Contractor 's employees in accordance with the laws of the State of California, Section 3700 of the Labor Code In addition, Contractor shall require each subcontractor to similarly maintain Workers' Compensation Insurance and Employer's Liability Insurance in accordance with the laws of the State of California, Section 3700 for all of the subcontractor's employees.

Contractor shall submit to the City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of the City, its officers, agents, employees and volunteers.

Pollution liability insurance. Environmental Impairment Liability Insurance shall be written on a Contractor's Pollution Liability form or other form acceptable to the

City providing coverage for liability arising out of sudden, accidental and gradual pollution and remediation. The policy limit shall be no less than $1,000,000 dollars per claim and in the aggregate. All activities contemplated in this agreement shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the project site to the final disposal location, including non-owned disposal sites.

Products/completed operations coverage shall extend a minimum of three years after project completion. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using subcontractors, the Policy must include work performed "by or on behalf" of the insured. Policy shall contain no language that would invalidate or remove the insurer's duty to defend or indemnify for claims or suits expressly excluded from coverage. Policy shall specifically provide for a duty to defend on the part of the insurer. The City, its officials, officers, agents, and employees, shall be included as insureds under the policy.

Builder's risk insurance. Upon commencement of construction and with approval of City, Contractor shall obtain and maintain builder's risk insurance for the entire duration of the Project until only the City has an insurable interest. The Builder's Risk coverage shall include the coverages as specified below.

The named insureds shall be Contractor and City, including its officers, officials, employees, and agents. All Subcontractors (excluding those solely responsible for design work) of any tier and suppliers shall be included as additional insureds as their interests may appear. Contractor shall not be required to maintain property insurance for any portion of the Project following transfer of control thereof to the City. The policy shall contain a provision that all proceeds from the builder's risk policy shall be made payable to the City. The City will act as a fiduciary for all other interests in the Project.

Policy shall be provided for replacement value on an "all risk" basis for the completed value of the project. There shall be no coinsurance penalty or provisional limit provision in any such policy. Policy must include: (1) coverage for any ensuing loss from faulty workmanship, nonconforming work, omission or deficiency in design or specifications; (2) coverage against machinery accidents and operational testing; (3) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures and all other properties constituting a part of the Project; (4) Ordinance or law coverage for contingent rebuilding, demolition, and increased costs of construction; (5) transit coverage (unless insured by the supplier or receiving contractor), with sub-limits sufficient to insure the full replacement value of any key equipment item; (6) Ocean marine cargo coverage insuring any Project materials or supplies, if applicable; (7) coverage with sub-limits sufficient to insure the full replacement value of any property or equipment stored either on or off the Project site or any staging area. Such insurance shall be on a form acceptable to the City to ensure adequacy of terms and sublimits and shall be submitted to the City prior to commencement of construction.

Other provisions or requirements

Proof of insurance. Contractor shall provide certificates of insurance to the City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsements must be approved by the City's risk manager prior to commencement of performance. Current certification of insurance shall be kept on file with the City at all times during the term of this contract. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by Contractor, his agents, representatives, employees or subcontractors. Contractor must maintain general liability and umbrella or excess liability insurance for as long as there is a statutory exposure to completed operations claims. The City and its officers, officials, employees, and agents shall continue as additional insureds under such policies.

Primary/noncontributing. Coverage provided by Contractor shall be primary and any insurance or self-insurance procured or maintained by the City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these requirements or is canceled and not replaced, the City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by the city will be promptly reimbursed by Contractor or the City will withhold amounts sufficient to pay premium from Contractor payments. In the alternative, the City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance or is on the List of Approved Surplus Line Insurers in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VII (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's risk manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Contractor or others providing insurance evidence in compliance with these

specifications to waive their right of recovery prior to a loss. Contractor hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Contractor acknowledges and agrees that any actual or alleged failure on the part of the City to inform Contractor of non-compliance with any requirement imposes no additional obligations on the City nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Contractor maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Contractor agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess/umbrella liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Contractor agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by Contractor, provide the same minimum insurance coverage and endorsements required of Contractor. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Contractor agrees that

upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise requirements. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Contractor a ninety (90)-day advance written notice of such change. If such change results in substantial additional cost to the Contractor, the City and Contractor may renegotiate Contractor's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by City. City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Contractor shall give City prompt and timely notice of claims made or suits instituted that arise out of or result from Contractor's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Contractor shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

ARTICLE 13 - CONTRACTOR'S LICENSE

Contractor must possess at the time of commencing work and throughout the Project duration, a Contractor's License, issued by the State of California, which is current and in good standing. Contractor shall ensure that any subcontractor working on the Project possesses at the time of commencing work and throughout the Project duration, a Contractor's License, issued by the State of California, which is current and in good standing.

ARTICLE 14 - CORPORATION IN GOOD STANDING

If Contractor is a corporation, the undersigned hereby represents and warrants that the corporation is duly incorporated and in good standing in the State of Cailfornia, and that Michael Messang whose title is CEO, is authorized to act for and bind the corporation.

ARTICLE 15 - PROVISIONS REQUIRED BY LAW

Each and every provision of law and clause required by law to be inserted in this Agreement shall be deemed to be inserted herein and the Agreement shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not currently inserted, then upon application of either

party the Agreement shall forthwith be physically amended to make such insertion or correction.

ARTICLE 16 - SUBSURFACE HAZARDOUS MATERIALS

A. In the event trenches or other excavations extend deeper than four (4) feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the City in writing of any:
   1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II or Class III disposal site in accordance with the provisions of existing law.
   2. Subsurface or latent physical conditions at the site differing from those indicated.
   3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the Work or the character provided for in the Agreement.

B. Upon receipt of said notification the City will investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of or the time required for performance of any part of the work, the City will issue a change order under the procedures described in the General Conditions.

C. In the event that a dispute arises between the City and the Contractor whether the conditions materially differ, or involve hazardous waste or cause a decrease or increase in the Contractor's cost of or time required for performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the Agreement, but shall proceed with all work to be performed under the Agreement. The Contractor shall retain any and all rights provided either by Agreement or by law which pertain to the resolution of disputes and protests between the contracting parties.

ARTICLE 17 - LIQUIDATED DAMAGES

Pursuant to Government Code Section 53069.85, if work is not completed within the contract time or in strict accordance with the Project Schedule, it is understood, acknowledged and agreed that the City will suffer damage. It is therefore agreed that the Contractor shall pay to the City the sum of two hundred fifty dollars ($250.00) for each and every calendar day of delay beyond the Contract Time, or beyond any completion schedule, construction schedule or Project milestones established in or

pursuant to the Project Schedule, or beyond the time indicated in the Project Schedule for any individual Contract activity.

Contractor expressly understands, acknowledges and agrees that such liquidated damages can and shall be imposed if the Contractor does not meet each and every aspect of any activity schedule, completion schedule, construction schedule or Project milestones established in or pursuant to the Project Schedule. If the City accepts work or makes any payment under this Agreement after a default by reason of delays, the acceptance of such work and/or payment(s) shall in no respect constitute a waiver or modification of any provisions regarding Contract Time, a completion schedule, the Project Construction Schedule or the accrual of liquidated damages. In the event the same is not paid, the Contractor further agrees that the City may deduct the amount thereof from any money due or that may become due the Contractor under the Agreement. This Article does not exclude recovery of damages under provisions of the Contract Documents, and is expressly in addition to the City's ability to seek other damages.

Contractor is to refer to the Project Construction Schedule for duration of individual activities. Liquidated damages may be assessed if any individual activity duration exceeds the time indicated for that activity on the Project Construction Schedule.

ARTICLE 18 - COMPONENT PARTS OF THE CONTRACT

This Agreement entered into consists of the following Contract Documents, all of which are component parts of the Agreement as if herein set out in full or attached hereto:

Request for Proposals
Exhibit A – Contractor's Proposal
Exhibit B – Cost Estimate Sheet
Exhibit C – Agreement for Construction
Exhibit D – Non-Collusion Affidavit
Exhibit E – Faithful Performance Bond
Site Visit Certification

All of the above named Contract Documents are intended to be complementary. Work required by one of the above named Contract Documents and not by others shall be done as if required by all.

Collectively the Contract Documents and this Agreement constitute the entire contract of the Parties. No other agreements or contracts, whether oral or written, pertaining to the work to be performed, exists between the parties. This Agreement can be modified only by an amendment in writing, signed by both Parties.

ARTICLE 19 - SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person

or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

ARTICLE 20 - COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

ARTICLE 21 - CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

ARTICLE 22 - WAIVER

The waiver by City or Contractor of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Contractor unless in writing.

ARTICLE 23 - REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

ARTICLE 24 - AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Contractor represents and warrants that he/she has the authority to execute this Agreement on behalf of the Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

"CITY"
City of Industry

By:_____
Paul J. Philips, City Manager

"CONTRACTOR"
All American Contracting Corp.

By:_____
Michael Messang, CEO

Attest:

By:_____
Diane M. Schlichting, Chief Deputy City Clerk

Approved as to form:

By:_____
James M. Casso, City Attorney

EXHIBIT A:

CONTRACTOR'S PROPOSAL

INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS

AT 16200-5 TEMPLE AVENUE

TOTAL PRICE FOR ALL WORK (FROM COST ESTIMATE SHEET):

$ 359,106.00

Total Price Written Below:

Three hundred Fifty nine thousand one hundred six and 00/100 dollars.

COMPANY NAME All American Contracting Corp.

By Michael Messang Signature [signature]

Date 11/26/16

Contractor's License #954580 Class B 11/30/2018

Expiration Date

Contractor's DIR # 1000044794 6/30/2017

Expiration Date

Taxpayer Identification No: 81-4401960

Company Name All American Contracting Corp.

Owner's Name Michael Messang

Owner's Title CEO

Name	Address	Contractor's CA License#/ CA DIR#	Work to be performed/ **AND** Percentage of Total Work Performed	
1) All American Electric	281 E. San Bernardino Rd, Covina	Lic. #816336	Electrical	10%
2) Klein Plumbing	5011 Mangrove Ave., Covina	Lic. # 850452	Plumbing	10%
3) Elite Painting, 1500 W. Victor Ave, Visalia		Lic. # 663307	Paint	12%
4) Benny's General Bldg., 427 W. 2nd St., Azusa		Lic# 966883	Drywall + Framing	15%
5) Insulation Plus, 37 Sunset Ridge, Pomona		Lic. # 603760	Insulation	3%

NOTE: Except for certain "specialty items," Greenbook, Section 2-3.2 requires not less than fifty percent (50%) of the total work to be performed by the General Contractor. Please consult that section for specifics.

List three projects of a nature similar in type, scope and magnitude to this project completed by your firm. Failure to list three projects of the nature described above shall constitute cause for the City to reject the bid as non-responsive. (Attach additional pages if needed)

Construction Management and Superintendant Services provided from demolition of Existing home thru completion of Single Family Custom Homes at following addresses:
170 W. Norman Ave, Arcadia: 8,600 S.F. + Pool House, including all site work on 18,000 S.F. lot
522 Sharon Rd., Arcadia: 5,720 S.F. Single Family Home, including site work on 11,000 S.F. lot.
537 Sharon Rd, Arcadia: 5,160 S.F. Single Family Home, including site work on 10,500 S.F. lot

Also, list Project superintendent for Contractor on this Project and, in lieu of the superintendent, who will be his or her alternate. Please list three projects of a nature similar in type, scope and magnitude to this project completed by the superintendent and the alternate, while employed by the Bidder that is submitting this proposal. Failure to provide the information set forth above shall constitute cause for the City to reject the bid as non-responsive. (Attach additional pages if necessary)

Primary Superintendant - Michael Messang
Reference Projects completed are same as on previous page.
Secondary Superintendant - Jeff Polich
Superintendant For: Custom Home in Encino, CA, Home Remodel / Addition in Glendora, CA; Custom home construction in Arcadia, CA.

Please note that all features of the Work on the Project must be supervised by the Project superintendent, or his or her alternate, through Final Completion of the Project and that no substitution of the Project superintendent or the alternate is permitted without the prior written consent of the City. The City shall have the right to reasonably evaluate the qualifications of any individual proposed to substitute for the superintendent or alternate prior to giving its written consent to the substitution.

Exhibit B

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS AT 16200-5 TEMPLE AVENUE

SCOPE OF WORK/PROJECT DESCRIPTION:

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY NO. UNITS	QUANTITY UNIT MEAS.	UNIT PRICE	TOTAL COST
1.	Structural: Demolition and waste removal. Demolition of all interior items under scope of work and waste removal.	1	LS		$21,670.
2.	Framing: Miscellaneous framing to remove existing sliding glass door and 3 windows and relocate to new locations per plan wood framing modification as necessary.	1	LS		$25,885.
3.	Insulation: Install R-15 insulation in 2 by 4 vertical walls, R-19 insulation in 2 by 6 walls, and R-30 insulation in ceilings.	1	LS		$7,675.
4.	Rough Electrical: Provide new 225 amp main panel and two 100 amp sub-panel for living area. Install new electrical wiring, conduit, switches and outlets for added living space.	1	LS		$24,590.
5.	Rough Plumbing: Install new kitchen sink rough plumbing and drain. Install new gas line for stove. To include rough and finish plumbing for all bathrooms and laundry room. Purchase and install two Noritz tank-less water heaters (or equivalent) with pre-filters.	1	LS		$11,740.
6.	Drywall and Interior Items: Drywall installation, repair and replacement for all affected areas under project scope of work. Cost to include scraping of ceilings and re-texture all new and existing wall with a light orange peel finish.	1	LS		$29,500.
7.	HVAC: Purchase and install new 4 ton HVAC unit with 14 seer a/c and 80% efficiency furnace, R-6 ducting at new living area. Brand of equipment to be determined.	1	LS		$18,590.

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS AT 16200-5 TEMPLE AVENUE

SCOPE OF WORK/PROJECT DESCRIPTION:

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY NO. UNITS	QUANTITY UNIT MEAS.	UNIT PRICE	TOTAL COST
8.	Kitchen - Interior Finish Work: Purchase and installation of new Kitchen Cabinets, including perimeter cabinets. Granite Countertop (color to be chosen by owner). Purchase and installation of under mount sink charge. Backsplash – Purchase and installation of 3" by 6" tiles and matching trim molding (color to be chosen by owner). Cabinetry – U type kitchen layout, sink centered on long wall, stove and refrigerator at opposing walls (Cabinets) -- Custom built. Materials: 3/4 white melamine box construction with solid poplar hardwood face frame. Kitchen cabinets: Doors to be 5 piece, flat panel shaker style doors; Wood species used for doors and face frames: Paint grade Poplar. Door Style: 5 piece, flat center panel "Shaker Style" doors (Poplar paint grade). Finishes: Perimeter cabinets finished in pre-catalyzed white lacquer in satin (20 sheen) Pure White. Hardware: Soft closing door hinges, soft closing under mount drawer box slides. Drawer Boxes: 1/2" white melamine drawer box construction.	1	LS		$42,990.
9.	Master Bath: Construct 60" wide full height vanity cabinet with countertop ledge. 6"x24" Porcelain tile flooring in bathroom area. Waterproof and scratch and brown shower walls, and floor (L&M) Labor: Hot mop shower pan and float walls Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor. Purchase and installation of Quartz countertop materials for master bath countertops and tub deck. Purchase and install new framed wall for bathroom vanity mirror. Purchase and installation of new shower door and enclosure, clear 5/8" glass.	1	LS		$27,600.

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS AT 16200-5 TEMPLE AVENUE

SCOPE OF WORK/PROJECT DESCRIPTION:

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY NO. UNITS	QUANTITY UNIT MEAS.	UNIT PRICE	TOTAL COST
10.	Common Bathroom: Tub – Waterproof and scratch and brown shower walls, and floor. Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor. Fabricate and Install vanity cabinet and countertop with under mount sink, material type to be determined. Purchase and installation of new bypass shower door, clear glass, Purchase and install new framed bathroom vanity mirror.	1	LS		$16,500.
11.	Bedroom #3 Bathroom: Tub – waterproof and scratch and brown shower walls, and floor. Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor. Fabricate and Install vanity cabinet and countertop with under mount sink, material type to be determined. New bypass shower door, clear 5/8" glass. Purchase and install framed bathroom vanity mirror.	1	LS		$16,500.
12.	Casework - Finish Carpentry: Install new bedroom and closet doors in addition to match doors in existing house. Add interior wainscot and chair rail at entry, formal dining room, living room and family room. Purchase and install new 2.5" wide door and window casing, 6" streamline base boards, and 6" crown molding for all areas in house. Profile to be determined. Interior Common area Items Repaint entire house -- Interior (walls colored, ceiling flat enamel white, doors, trim and casework high gloss white). Install 6" by 24" porcelain tile at entry, powder bath, entry hall, kitchen, great room, dining room, master bathroom pantry, prep kitchen, California room, and secondary hallways.	1	LS		$83,220.
	TOTAL				$326,460.
	10% CONTINGENCY				$32,646.
	GRAND TOTAL				$359,106.

Exhibit D

CITY OF INDUSTRY

Request for Proposals ("RFP") Interior Upgrades and Code Complaince Repairs at 16200-5 Temple Avenue

CONTRACT NO. 2016-1006

CONTRACTOR:
All American Contracting Corp.

BUSINESS ADDRESS:
916 E. Whitcomb Ave.
Glendora, CA 91741

In submitting this bid for the project:

I, Michael Messeng, state that I have not directly or indirectly,
(Name)
entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with the project.

I do hereby certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed at 916 E. Whitcomb Ave., Glendora California, this 27th day of November, 2016.

SIGNATURE

EXHIBIT B

Price Comparison for Proposals Received from All American Contracting Corporation, Corner Keystone Construction Corporation and George Line Construction on November 28, 2016

[Attached]

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS AT 16200-5 TEMPLE AVENUE

CONTRACT NO.: 2016-1005 (MP 12-06 #22)

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY		Corner Keystone Construction Corporation		All American Contracting Corporation		George Line Construction	
		NO. UNITS	UNIT MEAS.	UNIT	TOTAL COST	UNIT	TOTAL COST	UNIT	TOTAL COST
1.	Structural: Demolition and waste removal. Demolition of all interior items under scope of work and waste removal.	1	LS		$7,838.00		$21,670.00		$26,250.00
2.	Framing: Miscellaneous framing to remove existing sliding glass door and 3 windows and relocate to new locations per plan wood framing modification as necessary.	1	LS		$2,945.00		$25,885.00		$22,000.00
3.	Insulation: Install R-15 insulation in 2 by 4 vertical walls, R-19 insulation in 2 by 6 walls, and R-30 insulation in ceilings.	1	LS		$9,998.01		$7,675.00		$18,000.00
4.	Rough Electrical: Provide new 225 amp main panel and two 100 amp sub-panel for living area. Install new electrical wiring, conduit, switches and outlets for added living space.	1	LS		$8,768.00		$24,590.00		$40,500.00
5.	Rough Plumbing: Install new kitchen sink rough plumbing and drain. Install new gas line for stove. To include rough and finish plumbing for all bathrooms and laundry room. Purchase and install two Noritz tank-less water heaters (or equivalent) with pre-filters.	1	LS		$13,143.00		$11,740.00		$34,000.00
6.	Drywall and Interior Items: Drywall installation, repair and replacement for all affected areas under project scope of work. Cost to include scraping of ceilings and re-texture all new and existing wall with a light orange peel finish.	1	LS		$31,521.51		$29,500.00		$36,000.00
7.	HVAC: Purchase and install new 4 ton HVAC unit with 14 seer a/c and 80% efficiency furnace, R-6 ducting at new living area. Brand of equipment to be determined.	1	LS		$10,120.00		$18,590.00		$25,500.00

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS AT 16200-5 TEMPLE AVENUE

CONTRACT NO.: 2016-1005 (MP 12-06 #22)

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY		Corner Keystone Construction Corporation		All American Contracting Corporation		George Line Construction	
		NO. UNITS	UNIT MEAS.	UNIT	TOTAL COST	UNIT	TOTAL COST	UNIT	TOTAL COST
8.	Kitchen - Interior Finish Work: Purchase and installation of new Kitchen Cabinets, including perimeter cabinets. Granite Countertop (color to be chosen by owner). Purchase and installation of under mount sink charge. Backsplash – Purchase and installation of 3" by 6" tiles and matching trim molding (color to be chosen by owner). Cabinetry – U type kitchen layout, sink centered on long wall, stove and refrigerator at opposing walls (Cabinets) -- Custom built. Materials: 3/4 white melamine box construction with solid poplar hardwood face frame. Kitchen cabinets: Doors to be 5 piece, flat panel shaker style doors; Wood species used for doors and face frames: Paint grade Poplar. Door Style: 5 piece, flat center panel "Shaker Style" doors (Poplar paint grade). Finishes: Perimeter cabinets finished in pre-catalyzed white lacquer in satin (20 sheen) Pure White. Hardware: Soft closing door hinges, soft closing under mount drawer box slides. Drawer Boxes: 1/2" white melamine drawer box	1	LS		$33,067.60		$42,990.00		$48,300.00
9.	Master Bath: Construct 60" wide full height vanity cabinet with countertop ledge. 6"x24" Porcelain tile flooring in bathroom area. Waterproof and scratch and brown shower walls, and floor (L&M) Labor: Hot mop shower pan and float walls Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor. Purchase and installation of Quartz countertop materials for master bath countertops and tub deck. Purchase and install new framed wall for bathroom vanity mirror. Purchase and installation of new shower door and enclosure, clear 5/8" glass.	1	LS		$15,541.50		$27,600.00		$23,160.00

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS AT 16200-5 TEMPLE AVENUE

CONTRACT NO.: 2016-1005 (MP 12-06 #22)

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY		Corner Keystone Construction Corporation		All American Contracting Corporation		George Line Construction	
		NO. UNITS	UNIT MEAS.	UNIT	TOTAL COST	UNIT	TOTAL COST	UNIT	TOTAL COST
10.	Common Bathroom: Tub – Waterproof and scratch and brown shower walls, and floor. Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor. Fabricate and Install vanity cabinet and countertop with under mount sink, material type to be determined. Purchase and installation of new bypass shower door, clear glass, Purchase and install new framed bathroom vanity mirror.	1	LS		$9,960.50		$16,500.00		$16,050.00
11.	Bedroom #3 Bathroom: Tub – waterproof and scratch and brown shower walls, and floor. Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor. Fabricate and Install vanity cabinet and countertop with under mount sink, material type to be determined. New bypass shower door, clear 5/8" glass. Purchase and install framed bathroom vanity mirror.	1	LS		$10,688.50		$16,500.00		$16,950.00
12.	Casework - Finish Carpentry: Install new bedroom and closet doors in addition to match doors in existing house. Add interior wainscot and chair rail at entry, formal dining room, living room and family room. Purchase and install new 2.5" wide door and window casing, 6" streamline base boards, and 6" crown molding for all areas in house. Profile to be determined. Interior Common area Items Repaint entire house – Interior (walls colored, ceiling flat enamel white, doors, trim and casework high gloss white). Install 6" by 24" porcelain tile at entry, powder bath, entry hall, kitchen, great room, dining room, master bathroom pantry, prep kitchen, California room, and secondary hallways.	1	LS		$139,255.16		$83,220.00		$109,500.00
			TOTAL		$292,846.78		$326,460.00		$416,210.00
			10% CONTINGENCY		$29,284.68		$32,646.00		$41,621.00
			GRAND TOTAL		**$322,131.46**		**$359,106.00**		**$457,831.00**

EXHIBIT C

Request for Proposals ("RFP") for Interior Upgrades and Code Compliance Repairs at 16200-5 Temple Avenue

[Attached]

REQUEST FOR PROPOSALS
INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS
AT 16200-5 TEMPLE AVENUE

Contract No. 2016-1005

CITY OF INDUSTRY
11/10/2016

A. PURPOSE

The City of Industry is seeking General Contractor proposals to upgrade a non-habitable residential building that is currently configured for office use and assure code compliance for habitation, including full interior upgrade with minor structural alterations. Raise hallway to 9'0" ceiling height to match newly added living space at east wing. Upgrade habitable areas to include Main kitchen, new crown molding in all common areas, window & door casework, and 6" tall base boards throughout entire house, install upgraded Quartz based countertops, carpeted flooring in sleeping quarters, install wood-like porcelain tile in common areas and hallways. Modernize all bathrooms with new tiled showers, cabinets, countertops, and floors, complete interior painting, case and millwork. Scrape and texture all new and existing ceilings to match. Install new 225 amp main electrical panel with two 100 amp sub panels. Install new 4 ton HVAC unit at new living area with 14 seer a/c and 80% efficiency furnace, R-6 ducting. Install two Noritz tank-less water heaters to service entire house. Replace existing sectional garage doors one single car, one two car at existing detached garage. Existing square footage is approx. 5500 sq. ft. with new room addition.

1) **Structural**
   Demolition and waste removal.
   Demolition of all interior items under scope of work and waste removal.
2) **Framing**
   Miscellaneous framing to remove existing sliding glass door and 3 windows and relocate to new locations per plan wood framing modification as necessary.
3) **Insulation**
   Install R-15 insulation in 2 by 4 vertical walls, R-19 insulation in 2 by 6 walls, and R-30 insulation in ceilings.
4) **Rough Electrical**
   Provide new 225 amp main panel and two 100 amp sub-panel for living area. Install new electrical wiring, conduit, switches and outlets for added living space.
5) **Rough Plumbing**
   Install new kitchen sink rough plumbing and drain. Install new gas line for stove. To include rough and finish plumbing for all bathrooms and laundry room.
   Purchase and install two Noritz tank-less water heaters (or equivalent) with pre-filters.
6) **Drywall and misc. interior items**
   Drywall installation, repair and replacement for all affected areas under project scope of work.

Cost to include scraping of ceilings and re-texture all new and existing wall with a light orange peel finish.

7) **HVAC**

Purchase and install new 4 ton HVAC unit with 14 seer a/c and 80% efficiency furnace, R-6 ducting at new living area. Brand of equipment to be determined.

8) **Kitchen -- Interior finish work**

Purchase and installation of new Kitchen Cabinets, including perimeter cabinets.
Granite Countertop (color to be chosen by owner).
Purchase and installation of under mount sink charge.
Backsplash – Purchase and installation of 3" by 6" tiles and matching trim molding (color to be chosen by owner).
Cabinetry – U type kitchen layout, sink centered on long wall, stove and refrigerator at opposing walls.
(Cabinets) -- Custom built.
Materials: 3/4 white melamine box construction with solid poplar hardwood face frame.
Kitchen cabinets: Doors to be 5 piece, flat panel shaker style doors; Wood species used for doors and face frames: Paint grade Poplar.
Door Style: 5 piece, flat center panel "Shaker Style" doors (Poplar paint grade).
Finishes: Perimeter cabinets finished in pre-catalyzed white lacquer in satin (20 sheen) Pure White.
Hardware: Soft closing door hinges, soft closing under mount drawer box slides.
Drawer Boxes: 1/2" white melamine drawer box construction.
Cabinet body: 3/4" white melamine boxes with fully adjustable shelves where applicable.
Face Frame: Paint grade poplar, common frame construction.
Approx. 30 linear feet of lower cabinets, 2 linear feet of pantry / tall cabinets, 25 linear feet of upper cabinets.

9) **Master bath**

Construct 60" wide full height vanity cabinet with countertop ledge.
6"x24" Porcelain tile flooring in bathroom area.
Waterproof and scratch and brown shower walls, and floor (L&M) Labor: Hot mop shower pan and float walls
Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor.
Purchase and installation of Quartz countertop materials for master bath countertops and tub deck.
Purchase and install new framed wall for bathroom vanity mirror.
Purchase and installation of new shower door and enclosure, clear 5/8" glass.

10) **Common bathroom**

Tub – Waterproof and scratch and brown shower walls, and floor.
Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor.
Fabricate and Install vanity cabinet and countertop with under mount sink, material type to be determined.
Purchase and installation of new bypass shower door, clear glass,
Purchase and install new framed bathroom vanity mirror.

11) **Bedroom #3 bathroom**

Tub – waterproof and scratch and brown shower walls, and floor.
Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor.

Fabricate and Install vanity cabinet and countertop with under mount sink, material type to be determined.
New bypass shower door, clear 5/8" glass.
Purchase and install framed bathroom vanity mirror.

12) **Casework, Finish carpentry**
Install new bedroom and closet doors in addition to match doors in existing house.
Add interior wainscot and chair rail at entry, formal dining room, living room and family room.
Purchase and install new 2.5" wide door and window casing, 6" streamline base boards, and 6" crown molding for all areas in house. Profile to be determined.
Interior Common area Items
Repaint entire house -- Interior (walls colored, ceiling flat enamel white, doors, trim and casework high gloss white).
Install 6" by 24" porcelain tile at entry, powder bath, entry hall, kitchen, great room, dining room, master bathroom pantry, prep kitchen, California room, and secondary hallways.

All work is to be guaranteed and will be tested and quality assured upon completion of the project.

All material, labor hours, and applicable taxes are to be included in the bid proposal. As a public works project funded through public funds, the project is subject to prevailing wage rates and contractors must detail the trades and pay rates used in the project as a part of the proposal. The contractor's prevailing wage cost estimates will be reviewed and must be substantiated.

B. CONTRACTOR SELECTION CRITERIA

The City will base its selection on previous experience on similar projects, knowledge and expertise of individuals that will be assigned, proposed schedule and availability, and the responses of references. Price will be considered a factor; however it will not be the determining factor. We anticipate the contractor's selection within three working days of the submittal deadline, with award of contract on December 8, 2016. It is expected that work will commence no later than December 12, 2016, with work completed in 45 working calendar days.

All contractors must be "Equal Opportunity Employers" and comply with the appropriate provisions of State and Federal law. Disadvantaged Business Enterprises are encouraged to participate. The selected contractors will be expected to execute an agreement with the City which meets all State and Local requirements, including insurance and prevailing wage. All contractors and subcontractors must be identified in the proposal, and the General Contractor and all subcontractors must be registered with the State Department of Industrial Relations.

C. CONTENTS OF SUBMITTAL

Proposal shall be submitted through the PlanetBids website. The format of the submittal shall generally be:

- A letter of interest signed by a principal of the firm with a statement as to the availability to complete the work.
- A description of the firm's field of expertise, capabilities, and current licenses.

- References including the names and telephone numbers of previous clients with similar projects.
- Submittal of a completed Contractor's Proposal, attached as Exhibit A.
- Submittal of a completed Cost Estimate Sheet, attached as Exhibit B.
- A sample Agreement for Construction Services is attached as Exhibit C, deviations from the sample contract will not be considered.
- Submittal of a completed Non-Collusion Affidavit, attached as Exhibit D.
- Submittal of a Faithful Performance Bond, attached as Exhibit E.

D. TIMELINE FOR SUBMITTALS

A mandatory site walk-through will be conducted on Friday, November 18, 2016 at 10:00 A.M. at 16200-5 Temple Avenue in the City of Industry. Please enter the City of Industry Expo Center Gate off of Temple Avenue at Expo Center Drive, and follow directions to the property.

The deadline for the submission of proposals is no later than 4:00 P.M, Monday, November 28, 2016. All submissions and questions must be submitted electronically through the City of Industry PlanetBids vendor portal. Postmarks, mailed, emailed or hard copy proposals will not be accepted. Late proposals will not be accepted. The final date to submit questions is Tuesday, November 22nd at 2:00 P.M. Any addendums or corrections will be sent to all job walk attendees through PlanetBids no later than 1:00 P.M. on Wednesday, November 23rd.

EXHIBIT A:

CONTRACTOR'S PROPOSAL

INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS

AT 16200-5 TEMPLE AVENUE

TOTAL PRICE FOR ALL WORK (FROM COST ESTIMATE SHEET):

$_____

Total Price Written Below:

_____

_____

_____

COMPANY NAME _____

By _____Signature_____

Date _____

Contractor's License #_____ Class_____ _____

Expiration Date

Contractor's DIR #_____ _____

Expiration Date

Taxpayer Identification No: _____

Company Name _____

Owner's Name _____

Owner's Title _____

24 Hour

Telephone No.

Area Code (_____) Address _____

Street Name/P.O. Box

#_____

_____

City **State** **Zip**

Name of the person from your company who inspected the project site.

_____ Inspection Date_____

In compliance with the "Subletting and Subcontracting Fair Practices Act" being Sections 4100-4113 of the Public Contract Code of the State of California, and any amendments thereto, each bidder shall set forth below the name and location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the Work or improvement in an amount in excess of one-half (1/2) of one percent (1%) of the prime contractor's total bid, and shall further set forth the portion of the Work which will be done by each subcontractor. Only one subcontractor for each such portion shall be listed.

If the contractor fails to specify a subcontractor for any portion of the Work to be performed under the Contract, he shall be deemed to have agreed to perform such portion himself, and he shall not be permitted to subcontract that portion of the work except under the conditions hereinafter set forth.

Subletting or subcontracting of any portion of the Work to which subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the legislative body of the City.

List the name, address and license of each subcontractor who will perform work in or about the work or improvement and indicate what part of the work will be done by each subcontractor. (Attach additional pages if needed)

Name	Address	Contractor's CA License#/ CA DIR#	Work to be performed/ **AND** Percentage of Total Work Performed

NOTE: Except for certain "specialty items," Greenbook, Section 2-3.2 requires not less than fifty percent (50%) of the total work to be performed by the General Contractor. Please consult that section for specifics.

List three projects of a nature similar in type, scope and magnitude to this project completed by your firm. Failure to list three projects of the nature described above shall constitute cause for the City to reject the bid as non-responsive. (Attach additional pages if needed)

_____

_____

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_____

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_____

Also, list Project superintendent for Contractor on this Project and, in lieu of the superintendent, who will be his or her alternate. Please list three projects of a nature similar in type, scope and magnitude to this project completed by the superintendent and the alternate, while employed by the Bidder that is submitting this proposal. Failure to provide the information set forth above shall constitute cause for the City to reject the bid as non-responsive. (Attach additional pages if necessary)

_____

_____

_____

_____

_____

_____

Please note that all features of the Work on the Project must be supervised by the Project superintendent, or his or her alternate, through Final Completion of the Project and that no substitution of the Project superintendent or the alternate is permitted without the prior written consent of the City. The City shall have the right to reasonably evaluate the qualifications of any individual proposed to substitute for the superintendent or alternate prior to giving its written consent to the substitution.

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS AT 16200-5 TEMPLE AVENUE

SCOPE OF WORK/PROJECT DESCRIPTION:

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY NO. UNITS	QUANTITY UNIT MEAS.	UNIT PRICE	TOTAL COST
1.	Structural: Demolition and waste removal. Demolition of all interior items under scope of work and waste removal.	1	LS		
2.	Framing: Miscellaneous framing to remove existing sliding glass door and 3 windows and relocate to new locations per plan wood framing modification as necessary.	1	LS		
3.	Insulation: Install R-15 insulation in 2 by 4 vertical walls, R-19 insulation in 2 by 6 walls, and R-30 insulation in ceilings.	1	LS		
4.	Rough Electrical: Provide new 225 amp main panel and two 100 amp sub-panel for living area. Install new electrical wiring, conduit, switches and outlets for added living space.	1	LS		
5.	Rough Plumbing: Install new kitchen sink rough plumbing and drain. Install new gas line for stove. To include rough and finish plumbing for all bathrooms and laundry room. Purchase and install two Noritz tank-less water heaters (or equivalent) with pre-filters.	1	LS		
6.	Drywall and Interior Items: Drywall installation, repair and replacement for all affected areas under project scope of work. Cost to include scraping of ceilings and re-texture all new and existing wall with a light orange peel finish.	1	LS		
7.	HVAC: Purchase and install new 4 ton HVAC unit with 14 seer a/c and 80% efficiency furnace, R-6 ducting at new living area. Brand of equipment to be determined.	1	LS		

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS AT 16200-5 TEMPLE AVENUE

SCOPE OF WORK/PROJECT DESCRIPTION:

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY NO. UNITS	QUANTITY UNIT MEAS.	UNIT PRICE	TOTAL COST
8.	Kitchen - Interior Finish Work: Purchase and installation of new Kitchen Cabinets, including perimeter cabinets. Granite Countertop (color to be chosen by owner). Purchase and installation of under mount sink charge. Backsplash – Purchase and installation of 3" by 6" tiles and matching trim molding (color to be chosen by owner). Cabinetry – U type kitchen layout, sink centered on long wall, stove and refrigerator at opposing walls (Cabinets) -- Custom built. Materials: 3/4 white melamine box construction with solid poplar hardwood face frame. Kitchen cabinets: Doors to be 5 piece, flat panel shaker style doors; Wood species used for doors and face frames: Paint grade Poplar. Door Style: 5 piece, flat center panel "Shaker Style" doors (Poplar paint grade). Finishes: Perimeter cabinets finished in pre-catalyzed white lacquer in satin (20 sheen) Pure White. Hardware: Soft closing door hinges, soft closing under mount drawer box slides. Drawer Boxes: 1/2" white melamine drawer box construction.	1	LS		
9.	Master Bath: Construct 60" wide full height vanity cabinet with countertop ledge. 6"x24" Porcelain tile flooring in bathroom area. Waterproof and scratch and brown shower walls, and floor (L&M) Labor: Hot mop shower pan and float walls Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor. Purchase and installation of Quartz countertop materials for master bath countertops and tub deck. Purchase and install new framed wall for bathroom vanity mirror. Purchase and installation of new shower door and enclosure, clear 5/8" glass.	1	LS		

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS AT 16200-5 TEMPLE AVENUE

SCOPE OF WORK/PROJECT DESCRIPTION:

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY NO. UNITS	QUANTITY UNIT MEAS.	UNIT PRICE	TOTAL COST
10.	Common Bathroom: Tub – Waterproof and scratch and brown shower walls, and floor. Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor. Fabricate and Install vanity cabinet and countertop with under mount sink, material type to be determined. Purchase and installation of new bypass shower door, clear glass, Purchase and install new framed bathroom vanity mirror.	1	LS		
11.	Bedroom #3 Bathroom: Tub – waterproof and scratch and brown shower walls, and floor. Purchase and Install 12" by 24" porcelain tiled shower, walls, and floor. Fabricate and Install vanity cabinet and countertop with under mount sink, material type to be determined. New bypass shower door, clear 5/8" glass. Purchase and install framed bathroom vanity mirror.	1	LS		
12.	Casework - Finish Carpentry: Install new bedroom and closet doors in addition to match doors in existing house. Add interior wainscot and chair rail at entry, formal dining room, living room and family room. Purchase and install new 2.5" wide door and window casing, 6" streamline base boards, and 6" crown molding for all areas in house. Profile to be determined. Interior Common area Items Repaint entire house -- Interior (walls colored, ceiling flat enamel white, doors, trim and casework high gloss white). Install 6" by 24" porcelain tile at entry, powder bath, entry hall, kitchen, great room, dining room, master bathroom pantry, prep kitchen, California room, and secondary hallways.	1	LS		
	TOTAL				
	10% CONTINGENCY				
	GRAND TOTAL				

CITY OF INDUSTRY

AGREEMENT FOR CONSTRUCTION SERVICES

This AGREEMENT FOR CONSTRUCTION SERVICES ("Agreement"), is made and effective as of INSERT DATE ("Effective Date"), between the City of Industry, a municipal corporation ("City") and INSERT NAME OF CONTRACTOR AND TYPE OF LEGAL ENTITY [i.e.-limited liability company, corporation, partnership, etc.]("Contractor"). The City and Contractor are hereinafter collectively referred to as the "Parties".

In consideration of the mutual covenants and conditions set forth herein, the Parties agree as follows:

ARTICLE 1 - SCOPE OF WORK

The Contractor shall perform within the time set forth in Article 2 of this Agreement and shall furnish all labor, materials, equipment, tools, utility services, and transportation and perform and complete all work required in connection with the construction interior upgrades and code compliance repairs at 16200-5 Temple Avenue (hereinafter "Project").

By entering into this Agreement, Contractor acknowledges that there may be other contractors on the site whose work will be coordinated with that of its own. Contractor expressly warrants and agrees that it will cooperate with other contractors and will do nothing to delay, hinder, or interfere with the work of other separate contractors, the City, the Construction Manager, the Architect, or utilities. Contractor also expressly agrees that, in the event its work is hindered, delayed, interfered with, or otherwise affected by a separate contractor, its sole remedy will be a direct action against the separate contractor. To the extent allowed by law, the Contractor will have no remedy, and hereby expressly waives any remedy against the City or the architect on account of delay, hindrance, interference or other events caused by a separate contractor.

ARTICLE 2 - TIME FOR PROJECT COMPLETION

All of Contractor's work on the Project shall be completed within durations established for the individual activities as set forth in the Project Construction Schedule. All work shall commence ten (10) calendar days after receiving a written Notice of Award from the City. Contractor shall refer to the Notice Inviting Bids, and Project Plans and Specifications, all of which, as set forth below, are incorporated herein by reference, for contractual obligations regarding individual activity durations. The aggregate sum total work of all individual prime contractors to the City comprises the entire "Project" and shall be commenced and completed in conformance with the Project Construction Schedule. The entire Project shall be completed within 45 working calendar days ("Contract Time").

ARTICLE 3 - THE CONTRACT SUM

The City shall pay to the Contractor for the performance of this Agreement, subject to any additions and deductions provided in the Project documents, the sum of [AMOUNT] ("Contract Sum").

ARTICLE 4 - PROGRESS PAYMENTS

Based upon applications for payment submitted by the Contractor, the City shall make progress payments on account of the Contract Sum to the Contractor as provided in the General Conditions.

ARTICLE 5 - RETENTION OF SECURITIES

Public Contract Code Section 22300 permits the substitution of securities for any monies withheld by a public agency to ensure performance under a contract, at the request and expense of the Contractor.

ARTICLE 6 – INDEMNITY, DEFENSE AND HOLD HARMLESS AGREEMENT

Contractor shall indemnify, defend with legal counsel approved by City, and hold harmless City, its officers, officials, employees and volunteers from and against all liability, loss, damage, expense, cost (including without limitation reasonable legal counsel fees, expert fees and all other costs and fees of litigation) of every nature arising out of or in connection with Contractor's negligence, recklessness or willful misconduct in the performance of work hereunder or its failure to comply with any of its obligations contained in this agreement, except such loss or damage which is caused by the sole or active negligence or willful misconduct of the City. Should conflict of interest principles preclude a single legal counsel from representing both City and Contractor, or should City otherwise find Contractor's legal counsel unacceptable, then Contractor shall reimburse the City its costs of defense, including without limitation reasonable legal counsels fees, expert fees and all other costs and fees of litigation. The Contractor shall promptly pay any final judgment rendered against the City (and its officers, officials, employees and volunteers) with respect to claims determined by a trier of fact to have been the result of the Contractor's negligent, reckless or wrongful performance. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this Agreement.

Contractor obligations under this section apply regardless of whether or not such claim, charge, damage, demand, action, proceeding, loss, stop notice, cost, expense, judgment, civil fine or penalty, or liability was caused in part or contributed to by an Indemnitee. However, without affecting the rights of City under any provision of this agreement, Contractor shall not be required to indemnify and hold harmless the City for liability attributable to the active negligence of the City, provided such active negligence

is determined by agreement between the Parties or by the findings of a court of competent jurisdiction. In instances where the City is shown to have been actively negligent and where City's active negligence accounts for only a percentage of the liability involved, the obligation of Contractor will be for that entire portion or percentage of liability not attributable to the active negligence of the City.

ARTICLE 7 - PREVAILING WAGES

A. Wage rates for this Project shall be in accordance with the "General Wage Determination Made By the Director of Industrial Relations Pursuant To California Labor Code, Part 7, Chapter 1, Article 2, Sections 1770, 1773 and 1773.1 ", for * * * County. Wage rates shall conform with those posted at _____ and the Project site.

B. The following Labor Code sections are hereby referenced and made a part of this Agreement:

1. Section 1775, Penalty for Failure to Comply with Prevailing Wage Rates.
2. Section 1777.4, Apprenticeship Requirements.
3. Section 1777.5, Apprenticeship Requirements.
4. Section 1813, Penalty for Failure to Pay Overtime.
5. Section 1810 and 1811, Working Hour Restrictions.
6. Section 1775, Payroll Records.
7. Section 1773.8, Travel and Subsistence Pay.

ARTICLE 8 - RECORD AUDIT

In accordance with Government Code, Section 8546.7, records of both the City and the Contractor shall be subject to examination and audit by the Auditor General for a period of three (3) years after final payment.

ARTICLE 9 - CERTIFICATIONS

At the time of submission of the proposal and thereafter, each proposal must be licensed as a **Class B General Building Contractor** as defined in Sections 7055-7058 of the Business and Professions Code.

ARTICLE 10 - FINAL PAYMENT

Final payment, constituting the entire unpaid balance of the Contract Sum, shall be paid by the City to the Contractor no sooner than thirty-five (35) days after a Notice of Completion has been recorded, unless otherwise stipulated in the Notice of Completion, provided the work has then been completed, and the Agreement fully performed.

ARTICLE 11 - CONTRACTOR'S FAILURE TO PROCURE COMPLETION OF PROJECT

In the event Contractor fails to furnish tools, equipment, or labor in the necessary quantity or quality, or fails to prosecute the work or any part thereof contemplated by this Agreement in a diligent and workmanlike manner, and if the Contractor for a period of three (3) calendar days after receipt of written demand from City or its designated representative to do so, fails to furnish tools, equipment, or labor in the necessary quantity or quality, and to prosecute its work and all parts thereof in a diligent and workmanlike manner, or after commencing to do so within said three (3) calendar days, fails to continue to do so; then the City may exclude the Contractor from the premises, or any portion thereof, and take possession of said premises or any portion thereof, together with all material and equipment thereon, and may complete the work contemplated by this Agreement or any portion of said work, either by furnishing the tools, equipment, labor or material necessary, or by letting the unfinished portion of said work, or the portion taken over by the City to another contractor or by a combination of such methods. In any event, the procuring of the completion of said work, or the portion thereof taken over by the City, shall be a charge against the Contractor, and may be deducted from any money due or becoming due to Contractor from the City, or the Contractor shall pay the City the amount of said charge, or the portion thereof unsatisfied. The sureties, provided for under this Agreement shall become liable for payment should Contractor fail to pay in full any said cost incurred by the City.

ARTICLE 12 –INSURANCE

Prior to the beginning of and throughout the duration of the Project, Contractor and its subcontractors shall maintain insurance in conformance with the requirements set forth below. Contractor will use existing coverage to comply with these requirements. If that existing coverage does not meet the requirements set forth herein, Contractor agrees to amend, supplement or endorse the existing coverage to do so.

Contractor acknowledges that the insurance coverage and policy limits set forth in this section constitute the minimum amount of coverage required. Any insurance proceeds available to Contractor or its subcontractors in excess of the limits and coverage identified in this Agreement and which is applicable to a given loss, claim or demand, will be equally available to the City.

A. Contractor shall provide the following types and amounts of insurance:

Without limiting Contractor's indemnification of City, and prior to commencement of the Project, Contractor shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to the City.

General liability insurance. Contractor shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $5,000,000 per occurrence, $10,000,000 general aggregate, for bodily injury, personal injury, and property damage, and a $5,000,000 completed operations aggregate. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Contractor shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Contractor arising out of or in connection with work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000 combined single limit for each accident.

Umbrella or excess liability insurance. Contractor shall obtain and maintain an umbrella or excess liability insurance that will provide bodily injury, personal injury and property damage liability coverage at least as broad as the primary coverages set forth above, including commercial general liability and employer's liability Such policy or policies shall include the following terms and conditions:

- A drop down feature requiring the policy to respond in the event that any primary insurance that would otherwise have applied proves to be uncollectable in whole or in part for any reason;
- Pay on behalf of wording as opposed to reimbursement;
- Concurrency of effective dates with primary policies; and
- Policies shall "follow form" to the underlying primary policies.
- Insureds under primary policies shall also be insureds under the umbrella or excess policies.

Workers' compensation insurance. Contractor shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000) for Contractor 's employees in accordance with the laws of the State of California, Section 3700 of the Labor Code In addition, Contractor shall require each subcontractor to similarly maintain Workers' Compensation Insurance and Employer's Liability Insurance in accordance with the laws of the State of California, Section 3700 for all of the subcontractor's employees.

Contractor shall submit to the City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of the City, its officers, agents, employees and volunteers.

Pollution liability insurance. Environmental Impairment Liability Insurance shall be written on a Contractor's Pollution Liability form or other form acceptable to the

City providing coverage for liability arising out of sudden, accidental and gradual pollution and remediation. The policy limit shall be no less than $1,000,000 dollars per claim and in the aggregate. All activities contemplated in this agreement shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the project site to the final disposal location, including non-owned disposal sites.

Products/completed operations coverage shall extend a minimum of three years after project completion. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using subcontractors, the Policy must include work performed "by or on behalf" of the insured. Policy shall contain no language that would invalidate or remove the insurer's duty to defend or indemnify for claims or suits expressly excluded from coverage. Policy shall specifically provide for a duty to defend on the part of the insurer. The City, its officials, officers, agents, and employees, shall be included as insureds under the policy.

Builder's risk insurance. Upon commencement of construction and with approval of City, Contractor shall obtain and maintain builder's risk insurance for the entire duration of the Project until only the City has an insurable interest. The Builder's Risk coverage shall include the coverages as specified below.

The named insureds shall be Contractor and City, including its officers, officials, employees, and agents. All Subcontractors (excluding those solely responsible for design work) of any tier and suppliers shall be included as additional insureds as their interests may appear. Contractor shall not be required to maintain property insurance for any portion of the Project following transfer of control thereof to the City. The policy shall contain a provision that all proceeds from the builder's risk policy shall be made payable to the City. The City will act as a fiduciary for all other interests in the Project.

Policy shall be provided for replacement value on an "all risk" basis for the completed value of the project. There shall be no coinsurance penalty or provisional limit provision in any such policy. Policy must include: (1) coverage for any ensuing loss from faulty workmanship, nonconforming work, omission or deficiency in design or specifications; (2) coverage against machinery accidents and operational testing; (3) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures and all other properties constituting a part of the Project; (4) Ordinance or law coverage for contingent rebuilding, demolition, and increased costs of construction; (5) transit coverage (unless insured by the supplier or receiving contractor), with sub-limits sufficient to insure the full replacement value of any key equipment item; (6) Ocean marine cargo coverage insuring any Project materials or supplies, if applicable; (7) coverage with sub-limits sufficient to insure the full replacement value of any property or equipment stored either on or off the Project site or any staging area. Such insurance shall be on a form acceptable to the City to ensure adequacy of terms and sublimits and shall be submitted to the City prior to commencement of construction.

Other provisions or requirements

Proof of insurance. Contractor shall provide certificates of insurance to the City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsements must be approved by the City's risk manager prior to commencement of performance. Current certification of insurance shall be kept on file with the City at all times during the term of this contract. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by Contractor, his agents, representatives, employees or subcontractors. Contractor must maintain general liability and umbrella or excess liability insurance for as long as there is a statutory exposure to completed operations claims. The City and its officers, officials, employees, and agents shall continue as additional insureds under such policies.

Primary/noncontributing. Coverage provided by Contractor shall be primary and any insurance or self-insurance procured or maintained by the City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these requirements or is canceled and not replaced, the City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by the city will be promptly reimbursed by Contractor or the City will withhold amounts sufficient to pay premium from Contractor payments. In the alternative, the City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance or is on the List of Approved Surplus Line Insurers in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VII (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's risk manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Contractor or others providing insurance evidence in compliance with these

specifications to waive their right of recovery prior to a loss. Contractor hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Contractor acknowledges and agrees that any actual or alleged failure on the part of the City to inform Contractor of non-compliance with any requirement imposes no additional obligations on the City nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Contractor maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Contractor agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess/umbrella liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Contractor agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by Contractor, provide the same minimum insurance coverage and endorsements required of Contractor. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Contractor agrees that

upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise requirements. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Contractor a ninety (90)-day advance written notice of such change. If such change results in substantial additional cost to the Contractor, the City and Contractor may renegotiate Contractor's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by City. City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Contractor shall give City prompt and timely notice of claims made or suits instituted that arise out of or result from Contractor's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Contractor shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

ARTICLE 13 - CONTRACTOR'S LICENSE

Contractor must possess at the time of commencing work and throughout the Project duration, a Contractor's License, issued by the State of California, which is current and in good standing. Contractor shall ensure that any subcontractor working on the Project possesses at the time of commencing work and throughout the Project duration, a Contractor's License, issued by the State of California, which is current and in good standing.

ARTICLE 14 - CORPORATION IN GOOD STANDING

If Contractor is a corporation, the undersigned hereby represents and warrants that the corporation is duly incorporated and in good standing in the State of _____, and that _____ whose title is _____, is authorized to act for and bind the corporation.

ARTICLE 15 - PROVISIONS REQUIRED BY LAW

Each and every provision of law and clause required by law to be inserted in this Agreement shall be deemed to be inserted herein and the Agreement shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not currently inserted, then upon application of either

party the Agreement shall forthwith be physically amended to make such insertion or correction.

ARTICLE 16 - SUBSURFACE HAZARDOUS MATERIALS

A. In the event trenches or other excavations extend deeper than four (4) feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the City in writing of any:
   1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II or Class III disposal site in accordance with the provisions of existing law.
   2. Subsurface or latent physical conditions at the site differing from those indicated.
   3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the Work or the character provided for in the Agreement.

B. Upon receipt of said notification the City will investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of or the time required for performance of any part of the work, the City will issue a change order under the procedures described in the General Conditions.

C. In the event that a dispute arises between the City and the Contractor whether the conditions materially differ, or involve hazardous waste or cause a decrease or increase in the Contractor's cost of or time required for performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the Agreement, but shall proceed with all work to be performed under the Agreement. The Contractor shall retain any and all rights provided either by Agreement or by law which pertain to the resolution of disputes and protests between the contracting parties.

ARTICLE 17 - LIQUIDATED DAMAGES

Pursuant to Government Code Section 53069.85, if work is not completed within the contract time or in strict accordance with the Project Schedule, it is understood, acknowledged and agreed that the City will suffer damage. It is therefore agreed that the Contractor shall pay to the City the sum of two hundred fifty dollars ($250.00) for each and every calendar day of delay beyond the Contract Time, or beyond any completion schedule, construction schedule or Project milestones established in or

pursuant to the Project Schedule, or beyond the time indicated in the Project Schedule for any individual Contract activity.

Contractor expressly understands, acknowledges and agrees that such liquidated damages can and shall be imposed if the Contractor does not meet each and every aspect of any activity schedule, completion schedule, construction schedule or Project milestones established in or pursuant to the Project Schedule. If the City accepts work or makes any payment under this Agreement after a default by reason of delays, the acceptance of such work and/or payment(s) shall in no respect constitute a waiver or modification of any provisions regarding Contract Time, a completion schedule, the Project Construction Schedule or the accrual of liquidated damages. In the event the same is not paid, the Contractor further agrees that the City may deduct the amount thereof from any money due or that may become due the Contractor under the Agreement. This Article does not exclude recovery of damages under provisions of the Contract Documents, and is expressly in addition to the City's ability to seek other damages.

Contractor is to refer to the Project Construction Schedule for duration of individual activities. Liquidated damages may be assessed if any individual activity duration exceeds the time indicated for that activity on the Project Construction Schedule.

ARTICLE 18 - COMPONENT PARTS OF THE CONTRACT

This Agreement entered into consists of the following Contract Documents, all of which are component parts of the Agreement as if herein set out in full or attached hereto:

Request for Proposals
Exhibit A – Contractor's Proposal
Exhibit B – Cost Estimate Sheet
Exhibit C – Agreement for Construction
Exhibit D – Non-Collusion Affidavit
Exhibit E – Faithful Performance Bond
Site Visit Certification

All of the above named Contract Documents are intended to be complementary. Work required by one of the above named Contract Documents and not by others shall be done as if required by all.

Collectively the Contract Documents and this Agreement constitute the entire contract of the Parties. No other agreements or contracts, whether oral or written, pertaining to the work to be performed, exists between the parties. This Agreement can be modified only by an amendment in writing, signed by both Parties.

ARTICLE 19 - SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person

or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

ARTICLE 20 - COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

ARTICLE 21 - CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

ARTICLE 22 - WAIVER

The waiver by City or Contractor of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Contractor unless in writing.

ARTICLE 23 - REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

ARTICLE 24 - AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Contractor represents and warrants that he/she has the authority to execute this Agreement on behalf of the Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

"CITY"
City of Industry

By:_____
Paul J. Philips, City Manager

"CONTRACTOR"
INSERT NAME OF COMPANY

By:_____
Name, Title

Attest:

By:_____
Diane M. Schlichting, Chief Deputy City Clerk

Approved as to form:

By:_____
James M. Casso, City Attorney

CITY OF INDUSTRY

Request for Proposals ("RFP") Interior Upgrades and Code Complaince Repairs at 16200-5 Temple Avenue

CONTRACT NO. 2016-1005

CONTRACTOR:

_____

BUSINESS ADDRESS:

_____

_____

In submitting this bid for the project:

I, _____, state that I have not directly or indirectly,
(Name)
entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with the project.

I do hereby certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed at _____ California, this _____ day of _____, 201__.

_____

SIGNATURE

Bond No._____

Date:_____

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the CITY OF INDUSTRY has awarded to _____ _____ as principal, hereinafter designated as the "CONTRACTOR", a contract for the work described as:

Request for Proposals ("RFP") Interior Upgrades and Code Compliance Repairs at 16200-5 Temple Avenue

CONTRACT NO. 2016-1005

AND WHEREAS, the Contractor is required to furnish a bond in connection with said contract guaranteeing the faithful performance thereof;

NOW, THEREFORE, we, the undersigned Contractor and Surety, are held firmly bound unto the CITY OF INDUSTRY in the sum of_____ _____($_____), to be paid to the CITY OF INDUSTRY, its successors and assigns, for which payment will and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH:

NOW, THEREFORE, if said Contractor its officers, agents, employees, subcontractors, heirs, executors, administrators, successors, or assigns shall well and truly do and perform all of the covenants and obligations of said contract on his part to be done and performed at the times and in the manner specified herein, then this obligation shall be null and void, otherwise it shall be and remain in full force and effect;

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this_____day of_____, 201___.

_____ By: _____

CONTRACTOR Authorized Signature

_____ By: _____

SURETY COMPANY Authorized Signature

_____

SURETY COMPANY ADDRESS

November 23, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

Request for Proposals Addendum No. 1

CITY OF INDUSTRY

REQUEST FOR PROPOSALS FOR INTERIOR UPGRADES AND CODE COMPLIANCE REPAIRS

CONTRACT NO. 2016-1005

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original Request for Proposal.

All other terms and conditions remain unchanged.

REQUEST FOR PROPOSALS

C. CONTENTS OF SUBMITTAL,

- Submittal of a Faithful Performance Bond shall be for a 100% of the contract price to guaranty faithful performance of all work, within the time prescribed, in a manner satisfactory to the City, and that all materials and workmanship will be free from original or developed defects. The Bond must remain in effect until the end of all warranty periods set forth in the contract documents.

END OF ADDENDUM

EXHIBIT D

City Council Agenda Item dated September 8, 2016

[Attached]

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Alex Gonzalez, Director of Development Services and Administration
William Hayes, Field Operations and Asset Superintendent

Date: September 8, 2016

SUBJECT: Consideration of Formal Bidding Activity for Repairs and Safety and Code Compliance at 16200-5 Temple Avenue and 16224 Temple Avenue, per City of Industry Municipal Code Section 3.52.040(A) Adoption of Plans and Bidding – Public Projects.

The City of Industry is required to maintain its buildings in a condition that is safe and meets all current code requirements. Informal procurements for the two properties, 16200-5 and 16224 Temple Avenue were recently completed. The results of the informal bids on these properties triggered the need to require for a formal bid for the work at 16200-5 Temple Avenue, and signaled the possibility of a formal bid requirement for 16224 Temple Avenue, if the cost of the total work including mold remediation is over $125,000.

The City of Industry Municipal Code Section 3.52.040 requires that all public works projects over $125,000 receive approval from the City Council prior to the release of a notice inviting bids. In order to complete and release a Request for Proposals for the properties in question, it is requested that the City Council consider staff's request to move forward with a formal procurement process for 16200-5 and 16224 Temple Avenue.

The issues identified at the properties are as follows:

<u>16200-5 Temple Avenue</u>

- Unfinished 20' by 50' addition that is not to code with exposed framing.
- Substandard electric service panel.
- Substandard plumbing, without proper venting and inadequate hot water heater.
- Inadequate HVAC for existing square footage, no HVAC in addition.
- Kitchen cabinets modified in a manner that damaged cabinet doors.
- Cracked and damaged tile throughout.
- Plumbing not to code in bathroom.
- Missing smoke detectors and carbon monoxide detectors throughout.

- Commercial fire alarm installed, must be removed.

16224 Temple Avenue

- Mold testing showed elevated levels of mold throughout the property.
- Visible mold damage to the naked eye in upstairs restroom, exterior walls, and underneath kitchen cabinets.
- Visible evidence of water leaks throughout.
- All areas affected with mold must be demolished and remediated to EPA specifications. Until the drywall is removed and the framing exposed, it is unclear what the extent of damage is to the property.
- Damaged and loose tile throughout the property.
- Multiple holes in drywall that expose insulation.
- Several locations with exposed wiring.
- Windows damaged and termite ridden.
- Missing smoke detectors and carbon monoxide detectors throughout.
- Relocate dryer vent, as it discharges directly into the HVAC condenser.
- HVAC repair / replace, depending on damage inflicted by lint.

If approved, a formal bidding process will commence using PlanetBids and any proposals over $100,000 will return to the City Council for approval in compliance with Code Section 3.52.404.

PJP:AG:WH:mk

CITY COUNCIL

ITEM NO. 6.7

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Alex Gonzalez, Director of Development Services and Administration
William Hayes, Field Operations and Asset Superintendent
Kristen Weger, Administrative Analyst

Date: December 8, 2016

SUBJECT: Consideration of an Agreement for Construction Services with All American Contracting Corporation for Interior Repairs, Mold and Termite Remediation, and Upgrades at 16224 Temple Avenue in an amount not to exceed $130,971.50

On September 8, 2016, the City Council approved the development and release of an RFP for property repairs, including the mitigation of safety and code compliance issues at 16224 Temple Avenue (agenda item attached as Exhibit D) in compliance with City of Industry Municipal Code Section 3.52.040(A) after informal bidding indicated that project costs would meet or exceed $125,000.

As the City has a duty to ensure that all of its existing properties are in compliance with applicable building and safety codes, the City's capital improvement program is structured to ensure that deferred maintenance, incomplete projects, damaged and abandoned properties, and health and safety issues be addressed at all City owned properties in a systematic manner over the next three fiscal years.

On November 10, 2016, the City of Industry released a Request for Proposals ("RFP") for Interior Repairs, Mold and Termite Remediation, and Upgrades at 16224 Temple Avenue via the City of Industry's PlanetBids procurement portal. Per the Uniform Construction Cost Accounting Act procedures set forth in Article 2, Section 22034, forty-six qualified vendors were notified of the RFP. A mandatory site walk-through was held on Friday, November 18, 2016 at 11:00 am, with 5 vendors participating in the site walk-through. Questions were received from proposers up until Tuesday, November 22, 2016 at 2:00 pm.

Proposals were due to the City via PlanetBids by Monday, November 28, 2016, at 4:00 pm. The City received two (2) proposals from All American Contracting Corporation and Corner Keystone Construction Corporation. Table 1 below lists the proposal results.

Table 1 – Proposal Summary

Contractor	Amount
All American Contracting Corporation	$ 130,971.50
Corner Keystone Construction Corporation	$ 113,300.00

Staff reviewed Corner Keystone Construction Corporation project history and completed reference checks on the contractor. Based on the scope and size of the projects that were reported as completed by the contractor in their submittal, and the related reference checks, staff determined that Corner Keystone Construction Corporation may not have the necessary experience required to successfully complete a project of this size and scope under the desired schedule. Staff then considered All American Contracting Corporation.

Staff completed a reference check for All American Contracting Company by contacting three (3) references. All references contacted confirmed that All American Contracting Corporation had successfully completed the project listed for their representative companies. The companies contacted reported that they were satisfied with the contractor's performance, and references uniformly noted that they would consider the contractor for future projects. The projects reported by All American Contracting Company in their submittal were similar in size and scope to this project.

It is the determination of staff, based on the submittals received, a rejection of all proposals and a re-procurement of the project would produce similar bid results.

Fiscal Impact

This project will be supported by the 2015 Sales Tax Revenue Bond proceeds. An appropriation shall be made to 16224 Temple Avenue Construction Costs (account no. 120-716-5205) to cover the costs of the project.

Recommendation

1.) Based on the proposal and reference checks, staff recommends that All American Contracting Corporation be awarded an Agreement for Construction Services in an amount not to exceed $130,971.50 as the lowest responsible bidder; and
2.) Appropriate $130,971.50 to 16224 Temple Avenue Construction Costs (account no. 120-716-5205).

Upon City Council approval and execution of the attached Agreement for Construction Services and the issuance of a Notice to Proceed, All American Contracting Corporation is prepared to begin the project on December 12, 2016.

Exhibits
A. Agreement for Construction Services with All American Contracting Corporation in an amount not to exceed $130,971.50
B. Price Comparison for Proposals Received from All American Contracting Corporation and Corner Keystone Construction Corporation on November 28, 2016

C. Request for Proposals for Interior Repairs, Mold and Termite Remediation, and Upgrades at 16224 Temple Avenue

D. City Council Agenda Item from September 8, 2016

PJP:AG:KW:mk

EXHIBIT A

Agreement for Construction Services with All American Contracting Corporation in an amount not to exceed $130,971.50

[Attached]

CITY OF INDUSTRY

AGREEMENT FOR CONSTRUCTION SERVICES

This AGREEMENT FOR CONSTRUCTION SERVICES ("Agreement"), is made and effective as of December 8, 2016 ("Effective Date"), between the City of Industry, a municipal corporation ("City") and All American Contracting Corp., a California corporation ("Contractor"). The City and Contractor are hereinafter collectively referred to as the "Parties".

In consideration of the mutual covenants and conditions set forth herein, the Parties agree as follows:

ARTICLE 1 - SCOPE OF WORK

The Contractor shall perform within the time set forth in Article 2 of this Agreement and shall furnish all labor, materials, equipment, tools, utility services, and transportation and perform and complete all work required in connection with the construction interior repairs, mold and termite remediation, and upgrades at 16224 Temple Avenue (hereinafter "Project").

By entering into this Agreement, Contractor acknowledges that there may be other contractors on the site whose work will be coordinated with that of its own. Contractor expressly warrants and agrees that it will cooperate with other contractors and will do nothing to delay, hinder, or interfere with the work of other separate contractors, the City, the Construction Manager, the Architect, or utilities. Contractor also expressly agrees that, in the event its work is hindered, delayed, interfered with, or otherwise affected by a separate contractor, its sole remedy will be a direct action against the separate contractor. To the extent allowed by law, the Contractor will have no remedy, and hereby expressly waives any remedy against the City or the architect on account of delay, hindrance, interference or other events caused by a separate contractor.

ARTICLE 2 - TIME FOR PROJECT COMPLETION

All of Contractor's work on the Project shall be completed within durations established for the individual activities as set forth in the Project Construction Schedule. All work shall commence ten (10) calendar days after receiving a written Notice of Award from the City. Contractor shall refer to the Notice Inviting Bids, and Project Plans and Specifications, all of which, as set forth below, are incorporated herein by reference, for contractual obligations regarding individual activity durations. The aggregate sum total work of all individual prime contractors to the City comprises the entire "Project" and shall be commenced and completed in conformance with the Project Construction Schedule. The entire Project shall be completed within 45 working calendar days ("Contract Time").

ARTICLE 3 - THE CONTRACT SUM

The City shall pay to the Contractor for the performance of this Agreement, subject to any additions and deductions provided in the Project documents, the sum of One Hundred Thirty Thousand Nine Hundred Seventy-One Dollars and Fifty Cents ($130,971.50) ("Contract Sum").

ARTICLE 4 - PROGRESS PAYMENTS

Based upon applications for payment submitted by the Contractor, the City shall make progress payments on account of the Contract Sum to the Contractor as provided in the General Conditions.

ARTICLE 5 - RETENTION OF SECURITIES

Public Contract Code Section 22300 permits the substitution of securities for any monies withheld by a public agency to ensure performance under a contract, at the request and expense of the Contractor.

ARTICLE 6 – INDEMNITY, DEFENSE AND HOLD HARMLESS AGREEMENT

Contractor shall indemnify, defend with legal counsel approved by City, and hold harmless City, its officers, officials, employees and volunteers from and against all liability, loss, damage, expense, cost (including without limitation reasonable legal counsel fees, expert fees and all other costs and fees of litigation) of every nature arising out of or in connection with Contractor's negligence, recklessness or willful misconduct in the performance of work hereunder or its failure to comply with any of its obligations contained in this agreement, except such loss or damage which is caused by the sole or active negligence or willful misconduct of the City. Should conflict of interest principles preclude a single legal counsel from representing both City and Contractor, or should City otherwise find Contractor's legal counsel unacceptable, then Contractor shall reimburse the City its costs of defense, including without limitation reasonable legal counsels fees, expert fees and all other costs and fees of litigation. The Contractor shall promptly pay any final judgment rendered against the City (and its officers, officials, employees and volunteers) with respect to claims determined by a trier of fact to have been the result of the Contractor's negligent, reckless or wrongful performance. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this Agreement.

Contractor obligations under this section apply regardless of whether or not such claim, charge, damage, demand, action, proceeding, loss, stop notice, cost, expense, judgment, civil fine or penalty, or liability was caused in part or contributed to by an Indemnitee. However, without affecting the rights of City under any provision of this agreement, Contractor shall not be required to indemnify and hold harmless the City for liability attributable to the active negligence of the City, provided such active negligence

is determined by agreement between the Parties or by the findings of a court of competent jurisdiction. In instances where the City is shown to have been actively negligent and where City's active negligence accounts for only a percentage of the liability involved, the obligation of Contractor will be for that entire portion or percentage of liability not attributable to the active negligence of the City.

ARTICLE 7 - PREVAILING WAGES

A. Wage rates for this Project shall be in accordance with the "General Wage Determination Made By the Director of Industrial Relations Pursuant To California Labor Code, Part 7, Chapter 1, Article 2, Sections 1770, 1773 and 1773.1 ", for Los Angeles County. Wage rates shall conform with those posted at City Hall and the Project site.

B. The following Labor Code sections are hereby referenced and made a part of this Agreement:

1. Section 1775, Penalty for Failure to Comply with Prevailing Wage Rates.
2. Section 1777.4, Apprenticeship Requirements.
3. Section 1777.5, Apprenticeship Requirements.
4. Section 1813, Penalty for Failure to Pay Overtime.
5. Section 1810 and 1811, Working Hour Restrictions.
6. Section 1775, Payroll Records.
7. Section 1773.8, Travel and Subsistence Pay.

ARTICLE 8 - RECORD AUDIT

In accordance with Government Code, Section 8546.7, records of both the City and the Contractor shall be subject to examination and audit by the Auditor General for a period of three (3) years after final payment.

ARTICLE 9 - CERTIFICATIONS

At the time of submission of the proposal and thereafter, each proposal must be licensed as a **Class B General Building Contractor** as defined in Sections 7055-7058 of the Business and Professions Code.

ARTICLE 10 - FINAL PAYMENT

Final payment, constituting the entire unpaid balance of the Contract Sum, shall be paid by the City to the Contractor no sooner than thirty-five (35) days after a Notice of Completion has been recorded, unless otherwise stipulated in the Notice of Completion, provided the work has then been completed, and the Agreement fully performed.

ARTICLE 11 - CONTRACTOR'S FAILURE TO PROCURE COMPLETION OF PROJECT

In the event Contractor fails to furnish tools, equipment, or labor in the necessary quantity or quality, or fails to prosecute the work or any part thereof contemplated by this Agreement in a diligent and workmanlike manner, and if the Contractor for a period of three (3) calendar days after receipt of written demand from City or its designated representative to do so, fails to furnish tools, equipment, or labor in the necessary quantity or quality, and to prosecute its work and all parts thereof in a diligent and workmanlike manner, or after commencing to do so within said three (3) calendar days, fails to continue to do so; then the City may exclude the Contractor from the premises, or any portion thereof, and take possession of said premises or any portion thereof, together with all material and equipment thereon, and may complete the work contemplated by this Agreement or any portion of said work, either by furnishing the tools, equipment, labor or material necessary, or by letting the unfinished portion of said work, or the portion taken over by the City to another contractor or by a combination of such methods. In any event, the procuring of the completion of said work, or the portion thereof taken over by the City, shall be a charge against the Contractor, and may be deducted from any money due or becoming due to Contractor from the City, or the Contractor shall pay the City the amount of said charge, or the portion thereof unsatisfied. The sureties, provided for under this Agreement shall become liable for payment should Contractor fail to pay in full any said cost incurred by the City.

ARTICLE 12 –INSURANCE

Prior to the beginning of and throughout the duration of the Project, Contractor and its subcontractors shall maintain insurance in conformance with the requirements set forth below. Contractor will use existing coverage to comply with these requirements. If that existing coverage does not meet the requirements set forth herein, Contractor agrees to amend, supplement or endorse the existing coverage to do so.

Contractor acknowledges that the insurance coverage and policy limits set forth in this section constitute the minimum amount of coverage required. Any insurance proceeds available to Contractor or its subcontractors in excess of the limits and coverage identified in this Agreement and which is applicable to a given loss, claim or demand, will be equally available to the City.

A. Contractor shall provide the following types and amounts of insurance:

Without limiting Contractor's indemnification of City, and prior to commencement of the Project, Contractor shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to the City.

General liability insurance. Contractor shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $5,000,000 per occurrence, $10,000,000 general aggregate, for bodily injury, personal injury, and property damage, and a $5,000,000 completed operations aggregate. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Contractor shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Contractor arising out of or in connection with work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000 combined single limit for each accident.

Umbrella or excess liability insurance. Contractor shall obtain and maintain an umbrella or excess liability insurance that will provide bodily injury, personal injury and property damage liability coverage at least as broad as the primary coverages set forth above, including commercial general liability and employer's liability Such policy or policies shall include the following terms and conditions:

- A drop down feature requiring the policy to respond in the event that any primary insurance that would otherwise have applied proves to be uncollectable in whole or in part for any reason;
- Pay on behalf of wording as opposed to reimbursement;
- Concurrency of effective dates with primary policies; and
- Policies shall "follow form" to the underlying primary policies.
- Insureds under primary policies shall also be insureds under the umbrella or excess policies.

Workers' compensation insurance. Contractor shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000) for Contractor 's employees in accordance with the laws of the State of California, Section 3700 of the Labor Code In addition, Contractor shall require each subcontractor to similarly maintain Workers' Compensation Insurance and Employer's Liability Insurance in accordance with the laws of the State of California, Section 3700 for all of the subcontractor's employees.

Contractor shall submit to the City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of the City, its officers, agents, employees and volunteers.

Pollution liability insurance. Environmental Impairment Liability Insurance shall be written on a Contractor's Pollution Liability form or other form acceptable to the

City providing coverage for liability arising out of sudden, accidental and gradual pollution and remediation. The policy limit shall be no less than $1,000,000 dollars per claim and in the aggregate. All activities contemplated in this agreement shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the project site to the final disposal location, including non-owned disposal sites.

Products/completed operations coverage shall extend a minimum of three years after project completion. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using subcontractors, the Policy must include work performed "by or on behalf" of the insured. Policy shall contain no language that would invalidate or remove the insurer's duty to defend or indemnify for claims or suits expressly excluded from coverage. Policy shall specifically provide for a duty to defend on the part of the insurer. The City, its officials, officers, agents, and employees, shall be included as insureds under the policy.

Builder's risk insurance. Upon commencement of construction and with approval of City, Contractor shall obtain and maintain builder's risk insurance for the entire duration of the Project until only the City has an insurable interest. The Builder's Risk coverage shall include the coverages as specified below.

The named insureds shall be Contractor and City, including its officers, officials, employees, and agents. All Subcontractors (excluding those solely responsible for design work) of any tier and suppliers shall be included as additional insureds as their interests may appear. Contractor shall not be required to maintain property insurance for any portion of the Project following transfer of control thereof to the City. The policy shall contain a provision that all proceeds from the builder's risk policy shall be made payable to the City. The City will act as a fiduciary for all other interests in the Project.

Policy shall be provided for replacement value on an "all risk" basis for the completed value of the project. There shall be no coinsurance penalty or provisional limit provision in any such policy. Policy must include: (1) coverage for any ensuing loss from faulty workmanship, nonconforming work, omission or deficiency in design or specifications; (2) coverage against machinery accidents and operational testing; (3) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures and all other properties constituting a part of the Project; (4) Ordinance or law coverage for contingent rebuilding, demolition, and increased costs of construction; (5) transit coverage (unless insured by the supplier or receiving contractor), with sub-limits sufficient to insure the full replacement value of any key equipment item; (6) Ocean marine cargo coverage insuring any Project materials or supplies, if applicable; (7) coverage with sub-limits sufficient to insure the full replacement value of any property or equipment stored either on or off the Project site or any staging area. Such insurance shall be on a form acceptable to the City to ensure adequacy of terms and sublimits and shall be submitted to the City prior to commencement of construction.

Other provisions or requirements

Proof of insurance. Contractor shall provide certificates of insurance to the City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsements must be approved by the City's risk manager prior to commencement of performance. Current certification of insurance shall be kept on file with the City at all times during the term of this contract. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by Contractor, his agents, representatives, employees or subcontractors. Contractor must maintain general liability and umbrella or excess liability insurance for as long as there is a statutory exposure to completed operations claims. The City and its officers, officials, employees, and agents shall continue as additional insureds under such policies.

Primary/noncontributing. Coverage provided by Contractor shall be primary and any insurance or self-insurance procured or maintained by the City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these requirements or is canceled and not replaced, the City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by the city will be promptly reimbursed by Contractor or the City will withhold amounts sufficient to pay premium from Contractor payments. In the alternative, the City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance or is on the List of Approved Surplus Line Insurers in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VII (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's risk manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Contractor or others providing insurance evidence in compliance with these

specifications to waive their right of recovery prior to a loss. Contractor hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Contractor acknowledges and agrees that any actual or alleged failure on the part of the City to inform Contractor of non-compliance with any requirement imposes no additional obligations on the City nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Contractor maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Contractor agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess/umbrella liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Contractor agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by Contractor, provide the same minimum insurance coverage and endorsements required of Contractor. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Contractor agrees that

upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise requirements. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Contractor a ninety (90)-day advance written notice of such change. If such change results in substantial additional cost to the Contractor, the City and Contractor may renegotiate Contractor's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by City. City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Contractor shall give City prompt and timely notice of claims made or suits instituted that arise out of or result from Contractor's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Contractor shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

ARTICLE 13 - CONTRACTOR'S LICENSE

Contractor must possess at the time of commencing work and throughout the Project duration, a Contractor's License, issued by the State of California, which is current and in good standing. Contractor shall ensure that any subcontractor working on the Project possesses at the time of commencing work and throughout the Project duration, a Contractor's License, issued by the State of California, which is current and in good standing.

ARTICLE 14 - CORPORATION IN GOOD STANDING

If Contractor is a corporation, the undersigned hereby represents and warrants that the corporation is duly incorporated and in good standing in the State of California, and that Michael Messang whose title is CEO, is authorized to act for and bind the corporation.

ARTICLE 15 - PROVISIONS REQUIRED BY LAW

Each and every provision of law and clause required by law to be inserted in this Agreement shall be deemed to be inserted herein and the Agreement shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not currently inserted, then upon application of either

party the Agreement shall forthwith be physically amended to make such insertion or correction.

ARTICLE 16 - SUBSURFACE HAZARDOUS MATERIALS

A. In the event trenches or other excavations extend deeper than four (4) feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the City in writing of any:
   1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II or Class III disposal site in accordance with the provisions of existing law.
   2. Subsurface or latent physical conditions at the site differing from those indicated.
   3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the Work or the character provided for in the Agreement.

B. Upon receipt of said notification the City will investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of or the time required for performance of any part of the work, the City will issue a change order under the procedures described in the General Conditions.

C. In the event that a dispute arises between the City and the Contractor whether the conditions materially differ, or involve hazardous waste or cause a decrease or increase in the Contractor's cost of or time required for performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the Agreement, but shall proceed with all work to be performed under the Agreement. The Contractor shall retain any and all rights provided either by Agreement or by law which pertain to the resolution of disputes and protests between the contracting parties.

ARTICLE 17 - LIQUIDATED DAMAGES

Pursuant to Government Code Section 53069.85, if work is not completed within the contract time or in strict accordance with the Project Schedule, it is understood, acknowledged and agreed that the City will suffer damage. It is therefore agreed that the Contractor shall pay to the City the sum of two hundred fifty dollars ($250.00) for each and every calendar day of delay beyond the Contract Time, or beyond any completion schedule, construction schedule or Project milestones established in or

pursuant to the Project Schedule, or beyond the time indicated in the Project Schedule for any individual Contract activity.

Contractor expressly understands, acknowledges and agrees that such liquidated damages can and shall be imposed if the Contractor does not meet each and every aspect of any activity schedule, completion schedule, construction schedule or Project milestones established in or pursuant to the Project Schedule. If the City accepts work or makes any payment under this Agreement after a default by reason of delays, the acceptance of such work and/or payment(s) shall in no respect constitute a waiver or modification of any provisions regarding Contract Time, a completion schedule, the Project Construction Schedule or the accrual of liquidated damages. In the event the same is not paid, the Contractor further agrees that the City may deduct the amount thereof from any money due or that may become due the Contractor under the Agreement. This Article does not exclude recovery of damages under provisions of the Contract Documents, and is expressly in addition to the City's ability to seek other damages.

Contractor is to refer to the Project Construction Schedule for duration of individual activities. Liquidated damages may be assessed if any individual activity duration exceeds the time indicated for that activity on the Project Construction Schedule.

ARTICLE 18 - COMPONENT PARTS OF THE CONTRACT

This Agreement entered into consists of the following Contract Documents, all of which are component parts of the Agreement as if herein set out in full or attached hereto:

Request for Proposals
Exhibit A – Contractor's Proposal
Exhibit B – Cost Estimate Sheet
Exhibit C – Agreement for Construction
Exhibit D – Non-Collusion Affidavit
Exhibit E – Faithful Performance Bond
Site Visit Certification

All of the above named Contract Documents are intended to be complementary. Work required by one of the above named Contract Documents and not by others shall be done as if required by all.

Collectively the Contract Documents and this Agreement constitute the entire contract of the Parties. No other agreements or contracts, whether oral or written, pertaining to the work to be performed, exists between the parties. This Agreement can be modified only by an amendment in writing, signed by both Parties.

ARTICLE 19 - SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person

or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

ARTICLE 20 - COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

ARTICLE 21 - CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

ARTICLE 22 - WAIVER

The waiver by City or Contractor of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Contractor unless in writing.

ARTICLE 23 - REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

ARTICLE 24 - AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Contractor represents and warrants that he/she has the authority to execute this Agreement on behalf of the Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

"CITY"
City of Industry

By:_____
Paul J. Philips, City Manager

"CONTRACTOR"
All American Contracting Corp.

By: _____
Michael Messang, CEO

Attest:

By:_____
Diane M. Schlichting, Chief Deputy City Clerk

Approved as to form:

By:_____
James M. Casso, City Attorney

EXHIBIT A:

CONTRACTOR'S PROPOSAL

INTERIOR REPAIRS, MOLD AND TERMITE REMEDIATION, AND UPGRADES

AT 16224 TEMPLE AVENUE

TOTAL PRICE FOR ALL WORK (FROM COST ESTIMATE SHEET):

$ 130,971.50

Total Price Written Below:

One hundred thirty thousand nine hundred seventy one and 50/100 dollars.

COMPANY NAME All American Contracting Corp.

By Michael Messang Signature [signature]

Date 11/26/16

Contractor's License # 954580 Class B 11/30/18

Expiration Date

Contractor's DIR # 1000044794 6/30/2017

Expiration Date

Taxpayer Identification No: 81-4401960

Company Name All American Contracting Corp.

Owner's Name Michael Messang

Owner's Title C.E.O.

Name	Address	Contractor's CA License#/ CA DIR#	Work to be performed/ **AND** Percentage of Total Work Performed	
1) All American Electric	281 E. San Bernardino Rd, Covina	Lic. #816336	Electrical	10%
2) Klein Plumbing	5011 Mangrove Ave., Covina	Lic. # 850452	Plumbing	10%
3) Elite Painting, 1500 W. Victor Ave, Visalia,		Lic. # 663307	Paint	12%
4) Benny's General Bldg., 427 W. 2nd St., Azusa,		Lic# 966883	+ Drywall Framing	15%
5) Insulation Plus, 37 Sunset Ridge, Pomona		Lic. # 603760	Insulation	3%

NOTE: Except for certain "specialty items," Greenbook, Section 2-3.2 requires not less than fifty percent (50%) of the total work to be performed by the General Contractor. Please consult that section for specifics.

List three projects of a nature similar in type, scope and magnitude to this project completed by your firm. Failure to list three projects of the nature described above shall constitute cause for the City to reject the bid as non-responsive. (Attach additional pages if needed)

Construction Management and Superintendant Services provided from demolition of Existing home thru completion of Single Family Custom Homes at following addresses:
170 W. Norman Ave., Arcadia: 8,600 S.F. + Pool House, including all site work on 18,000 S.F. lot
522 Sharon Rd., Arcadia: 5,720 S.F. Single Family Home, including site work on 11,000 S.F. lot.
537 Sharon Rd., Arcadia: 5,160 S.F. Single Family Home, including site work on 10,500 S.F. lot

Also, list Project superintendent for Contractor on this Project and, in lieu of the superintendent, who will be his or her alternate. Please list three projects of a nature similar in type, scope and magnitude to this project completed by the superintendent and the alternate, while employed by the Bidder that is submitting this proposal. Failure to provide the information set forth above shall constitute cause for the City to reject the bid as non-responsive. (Attach additional pages if necessary)

Primary Superintendant - Michael Messang
Reference Projects completed are same as on previous page.
Secondary Superintendant - Jeff Polich
Superintendant for: Custom Home in Encino, CA, Home Remodel / Addition in Glendora, CA; Custom home construction in Arcadia, CA.

Please note that all features of the Work on the Project must be supervised by the Project superintendent, or his or her alternate, through Final Completion of the Project and that no substitution of the Project superintendent or the alternate is permitted without the prior written consent of the City. The City shall have the right to reasonably evaluate the qualifications of any individual proposed to substitute for the superintendent or alternate prior to giving its written consent to the substitution.

Exhibit B

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR REPAIRS, MOLD AND TERMITE REMEDIATION, AND UPGRADES AT

16224 TEMPLE AVENUE

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY NO. UNITS	QUANTITY UNIT MEAS.	UNIT PRICE	TOTAL COST
1.	Repair all holes in drywall, texture and prep for painting, including garage.	1	LS		4,870.
2.	Paint entire interior of house and garage, including all doors and trim.	1	LS		8,765.
3.	Replace all flooring throughout house.	1	LS		18,000.
4.	Remodel of master bathroom with mold remediation.	1	LS		24,690.
5.	Revise master bedroom closet door opening	1	LS		1,500.
6.	Remodel of common hallway bathroom with mold remediation.	1	LS		15,150.
7.	First floor powder bathroom flooring.	1	LS		1,200.
8.	Kitchen - interior finish work.	1	LS		31,575.
9.	Build and install new fireplace mantle in living room.	1	LS		1,800.
10.	Replace sliding glass door.	1	LS		2,900.
11.	Replace "French" doors in family room.	1	LS		3,150.
12.	Replace termite damaged and broken windows.	1	LS		2,270.
13.	Reloctae dryer vent away from outside HVAC as per code	1	LS		945.
14.	Clean and service all HVAC components and ducts	1	LS		2,250.
	TOTAL				119,065.
	10% CONTINGENCY				11,906.50
	GRAND TOTAL				$130,971.50

Exhibit D

CITY OF INDUSTRY

Request for Proposals ("RFP") Interior Upgrades and Code Complaince Repairs at 16214 Temple Avenue

CONTRACT NO. 2016-1006

CONTRACTOR:
All American Contracting Corp.

BUSINESS ADDRESS:
916 E. Whitcomb Ave.
Glendora, CA 91741

In submitting this bid for the project:

I, Michael Messeng, state that I have not directly or indirectly,
(Name)
entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with the project.

I do hereby certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed at 916 E. Whitcomb Ave., Glendora California, this 27th day of November, 2016.

Mel Messeng
SIGNATURE

EXHIBIT B

Price Comparison for Proposals Received from Corner Keystone Construction Corporation and All American Contracting Corporation on November 28, 2016

[Attached]

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR REPAIRS, MOLD AND TERMITE REMEDIATION, AND UPGRADES AT 16224 TEMPLE AVENUE

CONTRACT NO: 2016-1006 (MP 12-06 #14D)

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY		Corner Keystone Construction Corporation		All American Contracting Corporation	
		NO. UNITS	UNIT MEAS.	UNIT	TOTAL COST	UNIT	TOTAL COST
1.	Repair all holes in drywall, texture and prep for painting, including garage.	1	LS		$7,300.00		$4,870.00
2.	Paint entire interior of house and garage, including all doors and trim.	1	LS		$8,800.00		$8,765.00
3.	Replace all flooring throughout house.	1	LS		$17,600.00		$18,000.00
4.	Remodel of master bathroom with mold remediation.	1	LS		$21,500.00		$24,690.00
5.	Revise master bedroom closet door opening.	1	LS		$2,100.00		$1,500.00
6.	Remodel of common hallway bathroom with mold remediation.	1	LS		$17,500.00		$15,150.00
7.	First floor powder bathroom flooring.	1	LS		$2,100.00		$1,200.00
8.	Kitchen - interior finish work.	1	LS		$11,600.00		$31,575.00
9.	Build and install new fireplace mantle in living room.	1	LS		$1,900.00		$1,800.00
10.	Replace sliding glass door.	1	LS		$1,800.00		$2,900.00
11.	Replace "French" doors in family room.	1	LS		$3,300.00		$3,150.00
12.	Replace termite damaged and broken windows.	1	LS		$1,800.00		$2,270.00
13.	Relocate dryer vent away from outside HVAC as per code.	1	LS		$3,100.00		$945.00
14.	Clean and service all HVAC components and ducts.	1	LS		$2,600.00		$2,250.00
			TOTAL		$103,000.00		$119,065.00
			10% CONTINGENCY		$10,300.00		$11,906.50
			GRAND TOTAL		**$113,300.00**		**$130,971.50**

EXHIBIT C

Request for Proposals for Interior Repairs, Mold and Termite Remediation, and Upgrades at 16224 Temple Avenue

Contract No. 2016-1006

[Attached]

REQUEST FOR PROPOSALS
INTERIOR REPAIRS, MOLD AND TERMITE REMEDIATION, AND UPGRADES
AT 16224 TEMPLE AVENUE

Contract No. 2016-1006

CITY OF INDUSTRY
11/10/2016

A. PURPOSE

The City of Industry is seeking General Contractor proposals to repair and upgrade a residential building that suffers from mold and termite damage in two restrooms and the kitchen area. Scope of work includes:

Repair all holes in drywall, texture and prep for painting. Including garage.

Paint entire interior of house and garage, including all doors and trim (colors to be chosen by owner).

Replace all flooring through-out entire house.

- Remove all existing flooring in all rooms.
- Install new Home Depot, life-proof carpet with memory foam 7/16" carpet pad in all bedrooms and closets. Style and color to be chosen by owner.
- Install 6"x24" ceramic tile in the remainder of the house.

Complete remodel of master bathroom.

- Demolish existing bathroom down to wood framing for mold remediation.
- Install new rough plumbing for entire master bathroom.
- Install all new plumbing fixtures.
- Construct full height vanity cabinet with countertop ledge.
- Purchase and installation of Quartz countertop materials for master bath countertop, to include under mount double vanity sinks.
- Purchase and Install new framed wall for bathroom vanity mirror.
- Purchase and installation of new shower door and enclosure, clear 5/8" glass.

Revise master bedroom closet door opening.

- Relocate existing closet door from south wall to west wall.
- Relocate light switch adjacent to new door.
- Frame old door opening.
- Drywall and prep for painting.

Complete remodel of common hallway bathroom.

- Demolish existing bathroom down to wood framing for mold remediation.
- Install new rough plumbing.
- Install all new plumbing fixtures.
- Construct full height vanity cabinet with countertop ledge.

- Purchase and installation of Quartz countertop materials for common bath countertop, to include under mount vanity sink.
- Purchase and Install new framed wall for bathroom vanity mirror.
- Purchase and installation of new shower door and enclosure, clear 5/8" glass.

First floor powder bathroom flooring.

- Remove plumbing fixtures and re-install after flooring is replaced.

Kitchen -- Interior finish work.

- Purchase and installation of new Kitchen Cabinets, including perimeter cabinets.
- Quartz Countertop (color to be chosen by owner).
- Purchase and installation of under mount sink charge.
- Backsplash – Purchase and installation of 3" by 6" tiles and matching trim molding (color to be chosen by owner).
- Cabinetry – U type kitchen layout, sink centered on long wall, stove and refrigerator at opposing walls
- Materials: 3/4 white melamine box construction with solid poplar hardwood face frame.
- Kitchen cabinets: Doors to be 5 piece, flat panel shaker style doors; Wood species used for doors and face frames: Paint grade Poplar.
- Door Style: 5 piece, flat center panel "Shaker Style" doors (Poplar paint grade).
- Finishes: Perimeter cabinets finished in pre-catalyzed white lacquer in satin (20 sheen) Pure White.
- Hardware: Soft closing door hinges, soft closing under mount drawer box slides.
- Drawer Boxes: 1/2" white melamine drawer box construction.
- Cabinet body: 3/4" white melamine boxes with fully adjustable shelves where applicable.
- Face Frame: Paint grade poplar, common frame construction.
- Approx. 20 linear feet of lower cabinets, 2 linear feet of pantry / tall cabinets, approx. 15 linear feet of upper cabinets.

Build and install new fireplace mantle at living room.

- Build and install 60" wide shaker style mantle for formal living room fireplace.

Replace sliding glass door.

- Remove and install new vinyl, double pane, sliding glass door.

Replace "French" doors in family room.

- Remove and install new, double pane, French doors.

Replace termite damaged and broken windows.

- Remove and install new matching windows in formal living room.
- Remove and install new matching windows in both 2nd floor bathrooms.

Relocate dryer vent away from outside HVAC condenser and as per code.

Clean and service all HVAC components, including supply and return ducts.

All work is to be guaranteed and will be tested and quality assured upon completion of the project.

All material, labor hours, and applicable taxes are to be included in the bid proposal. As a public works project funded through public funds, the project is subject to prevailing wage rates and contractors must

detail the trades and pay rates used in the project as a part of the proposal. The contractor's prevailing wage cost estimates will be reviewed and must be substantiated.

B. CONTRACTOR SELECTION CRITERIA

The City will base its selection on previous experience on similar projects, knowledge and expertise of individuals that will be assigned, proposed schedule and availability, and the responses of references. Price will be considered a factor; however it will not be the determining factor. We anticipate the contractor's selection within three working days of the submittal deadline, with award of contract on December 8, 2016. It is expected that work will commence no later than January 3, 2017, with work completed in 60 days.

All contractors must be "Equal Opportunity Employers" and comply with the appropriate provisions of State and Federal law. Disadvantaged Business Enterprises are encouraged to participate. The selected contractors will be expected to execute an agreement with the City which meets all State and Local requirements, including insurance and prevailing wage. All contractors and subcontractors must be identified in the proposal, and the General Contractor and all subcontractors must be registered with the State Department of Industrial Relations.

C. CONTENTS OF SUBMITTAL

Proposal shall be submitted through the PlanetBids website. The format of the submittal shall generally be:

- A letter of interest signed by a principal of the firm with a statement as to the availability to complete the work.
- A description of the firm's field of expertise, capabilities, and current licenses.
- References including the names and telephone numbers of previous clients with similar projects.
- Submittal of a completed Contractor's Proposal, attached as Exhibit A.
- Submittal of a completed Cost Estimate Sheet, attached as Exhibit B.
- A sample contract is attached as Exhibit C, deviations from the sample contract will not be considered.
- Submittal of a completed Non-Collusion Affidavit, attached as Exhibit D.
- Submittal of a completed Faithful Performance Bond, attached as Exhibit E.

D. TIMELINE FOR SUBMITTALS

A mandatory site walk-through will be conducted on Friday, November 18, 2016 at 11:00 A.M. at 16224 Temple Avenue in the City of Industry. Please enter the City of Industry Expo Center Gate off of Temple Avenue at Expo Center Drive, and follow directions to the property.

The deadline for the submission of proposals is no later than 4:00 P.M, Monday, November 28, 2016. All submissions and questions will be submitted electronically through the PlanetBids website. Postmarks, mailed, emailed or hard copy proposals will not be accepted. Late proposals will not be accepted. The final date to submit questions is Tuesday, November 22nd at 2:00 P.M. Any addendums or corrections will be sent to all job walk attendees through PlanetBids no later than 1:00 P.M. on Wednesday, November 23rd.

EXHIBIT A:

CONTRACTOR'S PROPOSAL

INTERIOR REPAIRS, MOLD AND TERMITE REMEDIATION, AND UPGRADES

AT 16224 TEMPLE AVENUE

TOTAL PRICE FOR ALL WORK (FROM COST ESTIMATE SHEET):

$_____

Total Price Written Below:

_____

_____

_____

COMPANY NAME _____

By _____Signature_____

Date _____

Contractor's License #_____ Class_____ _____

Expiration Date

Contractor's DIR #_____ _____

Expiration Date

Taxpayer Identification No: _____

Company Name _____

Owner's Name _____

Owner's Title _____

24 Hour

Telephone No.

Area Code (_____) Address _____

Street Name/P.O. Box

#_____

_____

City **State** **Zip**

Name of the person from your company who inspected the project site.

_____ Inspection Date_____

In compliance with the "Subletting and Subcontracting Fair Practices Act" being Sections 4100-4113 of the Public Contract Code of the State of California, and any amendments thereto, each bidder shall set forth below the name and location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the Work or improvement in an amount in excess of one-half (1/2) of one percent (1%) of the prime contractor's total bid, and shall further set forth the portion of the Work which will be done by each subcontractor. Only one subcontractor for each such portion shall be listed.

If the contractor fails to specify a subcontractor for any portion of the Work to be performed under the Contract, he shall be deemed to have agreed to perform such portion himself, and he shall not be permitted to subcontract that portion of the work except under the conditions hereinafter set forth.

Subletting or subcontracting of any portion of the Work to which subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the legislative body of the City.

List the name, address and license of each subcontractor who will perform work in or about the work or improvement and indicate what part of the work will be done by each subcontractor. (Attach additional pages if needed)

Name	Address	Contractor's CA License#/ CA DIR#	Work to be performed/ **AND** Percentage of Total Work Performed

NOTE: Except for certain "specialty items," Greenbook, Section 2-3.2 requires not less than fifty percent (50%) of the total work to be performed by the General Contractor. Please consult that section for specifics.

List three projects of a nature similar in type, scope and magnitude to this project completed by your firm. Failure to list three projects of the nature described above shall constitute cause for the City to reject the bid as non-responsive. (Attach additional pages if needed)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Also, list Project superintendent for Contractor on this Project and, in lieu of the superintendent, who will be his or her alternate. Please list three projects of a nature similar in type, scope and magnitude to this project completed by the superintendent and the alternate, while employed by the Bidder that is submitting this proposal. Failure to provide the information set forth above shall constitute cause for the City to reject the bid as non-responsive. (Attach additional pages if necessary)

_____

_____

_____

_____

_____

_____

Please note that all features of the Work on the Project must be supervised by the Project superintendent, or his or her alternate, through Final Completion of the Project and that no substitution of the Project superintendent or the alternate is permitted without the prior written consent of the City. The City shall have the right to reasonably evaluate the qualifications of any individual proposed to substitute for the superintendent or alternate prior to giving its written consent to the substitution.

COST ESTIMATE SHEET

PROJECT NAME: INTERIOR REPAIRS, MOLD AND TERMITE REMEDIATION, AND UPGRADES AT

16224 TEMPLE AVENUE

ITEM NO.	DESCRIPTION OF ITEM	QUANTITY NO. UNITS	QUANTITY UNIT MEAS.	UNIT PRICE	TOTAL COST
1.	Repair all holes in drywall, texture and prep for painting, including garage.	1	LS		
2.	Paint entire interior of house and garage, including all doors and trim.	1	LS		
3.	Replace all flooring throughout house.	1	LS		
4.	Remodel of master bathroom with mold remediation.	1	LS		
5.	Revise master bedroom closet door opening	1	LS		
6.	Remodel of common hallway bathroom with mold remediation.	1	LS		
7.	First floor powder bathroom flooring.	1	LS		
8.	Kitchen - interior finish work.	1	LS		
9.	Build and install new fireplace mantle in living room.	1	LS		
10.	Replace sliding glass door.	1	LS		
11.	Replace "French" doors in family room.	1	LS		
12.	Replace termite damaged and broken windows.	1	LS		
13.	Reloctae dryer vent away from outside HVAC as per code	1	LS		
14.	Clean and service all HVAC components and ducts	1	LS		
	TOTAL				
	10% CONTINGENCY				
	GRAND TOTAL				

CITY OF INDUSTRY

AGREEMENT FOR CONSTRUCTION SERVICES

This AGREEMENT FOR CONSTRUCTION SERVICES ("Agreement"), is made and effective as of INSERT DATE ("Effective Date"), between the City of Industry, a municipal corporation ("City") and INSERT NAME OF CONTRACTOR AND TYPE OF LEGAL ENTITY [i.e.-limited liability company, corporation, partnership, etc.]("Contractor"). The City and Contractor are hereinafter collectively referred to as the "Parties".

In consideration of the mutual covenants and conditions set forth herein, the Parties agree as follows:

ARTICLE 1 - SCOPE OF WORK

The Contractor shall perform within the time set forth in Article 2 of this Agreement and shall furnish all labor, materials, equipment, tools, utility services, and transportation and perform and complete all work required in connection with the construction interior repairs, mold and termite remediation, and upgrades at 16224 Temple Avenue (hereinafter "Project").

By entering into this Agreement, Contractor acknowledges that there may be other contractors on the site whose work will be coordinated with that of its own. Contractor expressly warrants and agrees that it will cooperate with other contractors and will do nothing to delay, hinder, or interfere with the work of other separate contractors, the City, the Construction Manager, the Architect, or utilities. Contractor also expressly agrees that, in the event its work is hindered, delayed, interfered with, or otherwise affected by a separate contractor, its sole remedy will be a direct action against the separate contractor. To the extent allowed by law, the Contractor will have no remedy, and hereby expressly waives any remedy against the City or the architect on account of delay, hindrance, interference or other events caused by a separate contractor.

ARTICLE 2 - TIME FOR PROJECT COMPLETION

All of Contractor's work on the Project shall be completed within durations established for the individual activities as set forth in the Project Construction Schedule. All work shall commence ten (10) calendar days after receiving a written Notice of Award from the City. Contractor shall refer to the Notice Inviting Bids, and Project Plans and Specifications, all of which, as set forth below, are incorporated herein by reference, for contractual obligations regarding individual activity durations. The aggregate sum total work of all individual prime contractors to the City comprises the entire "Project" and shall be commenced and completed in conformance with the Project Construction Schedule. The entire Project shall be completed within 45 working calendar days ("Contract Time").

ARTICLE 3 - THE CONTRACT SUM

The City shall pay to the Contractor for the performance of this Agreement, subject to any additions and deductions provided in the Project documents, the sum of [AMOUNT] ("Contract Sum").

ARTICLE 4 - PROGRESS PAYMENTS

Based upon applications for payment submitted by the Contractor, the City shall make progress payments on account of the Contract Sum to the Contractor as provided in the General Conditions.

ARTICLE 5 - RETENTION OF SECURITIES

Public Contract Code Section 22300 permits the substitution of securities for any monies withheld by a public agency to ensure performance under a contract, at the request and expense of the Contractor.

ARTICLE 6 – INDEMNITY, DEFENSE AND HOLD HARMLESS AGREEMENT

Contractor shall indemnify, defend with legal counsel approved by City, and hold harmless City, its officers, officials, employees and volunteers from and against all liability, loss, damage, expense, cost (including without limitation reasonable legal counsel fees, expert fees and all other costs and fees of litigation) of every nature arising out of or in connection with Contractor's negligence, recklessness or willful misconduct in the performance of work hereunder or its failure to comply with any of its obligations contained in this agreement, except such loss or damage which is caused by the sole or active negligence or willful misconduct of the City. Should conflict of interest principles preclude a single legal counsel from representing both City and Contractor, or should City otherwise find Contractor's legal counsel unacceptable, then Contractor shall reimburse the City its costs of defense, including without limitation reasonable legal counsels fees, expert fees and all other costs and fees of litigation. The Contractor shall promptly pay any final judgment rendered against the City (and its officers, officials, employees and volunteers) with respect to claims determined by a trier of fact to have been the result of the Contractor's negligent, reckless or wrongful performance. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this Agreement.

Contractor obligations under this section apply regardless of whether or not such claim, charge, damage, demand, action, proceeding, loss, stop notice, cost, expense, judgment, civil fine or penalty, or liability was caused in part or contributed to by an Indemnitee. However, without affecting the rights of City under any provision of this agreement, Contractor shall not be required to indemnify and hold harmless the City for liability attributable to the active negligence of the City, provided such active negligence

is determined by agreement between the Parties or by the findings of a court of competent jurisdiction. In instances where the City is shown to have been actively negligent and where City's active negligence accounts for only a percentage of the liability involved, the obligation of Contractor will be for that entire portion or percentage of liability not attributable to the active negligence of the City.

ARTICLE 7 - PREVAILING WAGES

A. Wage rates for this Project shall be in accordance with the "General Wage Determination Made By the Director of Industrial Relations Pursuant To California Labor Code, Part 7, Chapter 1, Article 2, Sections 1770, 1773 and 1773.1 ", for * * * County. Wage rates shall conform with those posted at _____ and the Project site.

B. The following Labor Code sections are hereby referenced and made a part of this Agreement:

1. Section 1775, Penalty for Failure to Comply with Prevailing Wage Rates.
2. Section 1777.4, Apprenticeship Requirements.
3. Section 1777.5, Apprenticeship Requirements.
4. Section 1813, Penalty for Failure to Pay Overtime.
5. Section 1810 and 1811, Working Hour Restrictions.
6. Section 1775, Payroll Records.
7. Section 1773.8, Travel and Subsistence Pay.

ARTICLE 8 - RECORD AUDIT

In accordance with Government Code, Section 8546.7, records of both the City and the Contractor shall be subject to examination and audit by the Auditor General for a period of three (3) years after final payment.

ARTICLE 9 - CERTIFICATIONS

At the time of submission of the proposal and thereafter, each proposal must be licensed as a **Class B General Building Contractor** as defined in Sections 7055-7058 of the Business and Professions Code.

ARTICLE 10 - FINAL PAYMENT

Final payment, constituting the entire unpaid balance of the Contract Sum, shall be paid by the City to the Contractor no sooner than thirty-five (35) days after a Notice of Completion has been recorded, unless otherwise stipulated in the Notice of Completion, provided the work has then been completed, and the Agreement fully performed.

ARTICLE 11 - CONTRACTOR'S FAILURE TO PROCURE COMPLETION OF PROJECT

In the event Contractor fails to furnish tools, equipment, or labor in the necessary quantity or quality, or fails to prosecute the work or any part thereof contemplated by this Agreement in a diligent and workmanlike manner, and if the Contractor for a period of three (3) calendar days after receipt of written demand from City or its designated representative to do so, fails to furnish tools, equipment, or labor in the necessary quantity or quality, and to prosecute its work and all parts thereof in a diligent and workmanlike manner, or after commencing to do so within said three (3) calendar days, fails to continue to do so; then the City may exclude the Contractor from the premises, or any portion thereof, and take possession of said premises or any portion thereof, together with all material and equipment thereon, and may complete the work contemplated by this Agreement or any portion of said work, either by furnishing the tools, equipment, labor or material necessary, or by letting the unfinished portion of said work, or the portion taken over by the City to another contractor or by a combination of such methods. In any event, the procuring of the completion of said work, or the portion thereof taken over by the City, shall be a charge against the Contractor, and may be deducted from any money due or becoming due to Contractor from the City, or the Contractor shall pay the City the amount of said charge, or the portion thereof unsatisfied. The sureties, provided for under this Agreement shall become liable for payment should Contractor fail to pay in full any said cost incurred by the City.

ARTICLE 12 –INSURANCE

Prior to the beginning of and throughout the duration of the Project, Contractor and its subcontractors shall maintain insurance in conformance with the requirements set forth below. Contractor will use existing coverage to comply with these requirements. If that existing coverage does not meet the requirements set forth herein, Contractor agrees to amend, supplement or endorse the existing coverage to do so.

Contractor acknowledges that the insurance coverage and policy limits set forth in this section constitute the minimum amount of coverage required. Any insurance proceeds available to Contractor or its subcontractors in excess of the limits and coverage identified in this Agreement and which is applicable to a given loss, claim or demand, will be equally available to the City.

A. Contractor shall provide the following types and amounts of insurance:

Without limiting Contractor's indemnification of City, and prior to commencement of the Project, Contractor shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to the City.

General liability insurance. Contractor shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $5,000,000 per occurrence, $10,000,000 general aggregate, for bodily injury, personal injury, and property damage, and a $5,000,000 completed operations aggregate. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Contractor shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Contractor arising out of or in connection with work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000 combined single limit for each accident.

Umbrella or excess liability insurance. Contractor shall obtain and maintain an umbrella or excess liability insurance that will provide bodily injury, personal injury and property damage liability coverage at least as broad as the primary coverages set forth above, including commercial general liability and employer's liability Such policy or policies shall include the following terms and conditions:

- A drop down feature requiring the policy to respond in the event that any primary insurance that would otherwise have applied proves to be uncollectable in whole or in part for any reason;
- Pay on behalf of wording as opposed to reimbursement;
- Concurrency of effective dates with primary policies; and
- Policies shall "follow form" to the underlying primary policies.
- Insureds under primary policies shall also be insureds under the umbrella or excess policies.

Workers' compensation insurance. Contractor shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000) for Contractor 's employees in accordance with the laws of the State of California, Section 3700 of the Labor Code In addition, Contractor shall require each subcontractor to similarly maintain Workers' Compensation Insurance and Employer's Liability Insurance in accordance with the laws of the State of California, Section 3700 for all of the subcontractor's employees.

Contractor shall submit to the City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of the City, its officers, agents, employees and volunteers.

Pollution liability insurance. Environmental Impairment Liability Insurance shall be written on a Contractor's Pollution Liability form or other form acceptable to the

City providing coverage for liability arising out of sudden, accidental and gradual pollution and remediation. The policy limit shall be no less than $1,000,000 dollars per claim and in the aggregate. All activities contemplated in this agreement shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the project site to the final disposal location, including non-owned disposal sites.

Products/completed operations coverage shall extend a minimum of three years after project completion. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using subcontractors, the Policy must include work performed "by or on behalf" of the insured. Policy shall contain no language that would invalidate or remove the insurer's duty to defend or indemnify for claims or suits expressly excluded from coverage. Policy shall specifically provide for a duty to defend on the part of the insurer. The City, its officials, officers, agents, and employees, shall be included as insureds under the policy.

Builder's risk insurance. Upon commencement of construction and with approval of City, Contractor shall obtain and maintain builder's risk insurance for the entire duration of the Project until only the City has an insurable interest. The Builder's Risk coverage shall include the coverages as specified below.

The named insureds shall be Contractor and City, including its officers, officials, employees, and agents. All Subcontractors (excluding those solely responsible for design work) of any tier and suppliers shall be included as additional insureds as their interests may appear. Contractor shall not be required to maintain property insurance for any portion of the Project following transfer of control thereof to the City. The policy shall contain a provision that all proceeds from the builder's risk policy shall be made payable to the City. The City will act as a fiduciary for all other interests in the Project.

Policy shall be provided for replacement value on an "all risk" basis for the completed value of the project. There shall be no coinsurance penalty or provisional limit provision in any such policy. Policy must include: (1) coverage for any ensuing loss from faulty workmanship, nonconforming work, omission or deficiency in design or specifications; (2) coverage against machinery accidents and operational testing; (3) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures and all other properties constituting a part of the Project; (4) Ordinance or law coverage for contingent rebuilding, demolition, and increased costs of construction; (5) transit coverage (unless insured by the supplier or receiving contractor), with sub-limits sufficient to insure the full replacement value of any key equipment item; (6) Ocean marine cargo coverage insuring any Project materials or supplies, if applicable; (7) coverage with sub-limits sufficient to insure the full replacement value of any property or equipment stored either on or off the Project site or any staging area. Such insurance shall be on a form acceptable to the City to ensure adequacy of terms and sublimits and shall be submitted to the City prior to commencement of construction.

Other provisions or requirements

Proof of insurance. Contractor shall provide certificates of insurance to the City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsements must be approved by the City's risk manager prior to commencement of performance. Current certification of insurance shall be kept on file with the City at all times during the term of this contract. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by Contractor, his agents, representatives, employees or subcontractors. Contractor must maintain general liability and umbrella or excess liability insurance for as long as there is a statutory exposure to completed operations claims. The City and its officers, officials, employees, and agents shall continue as additional insureds under such policies.

Primary/noncontributing. Coverage provided by Contractor shall be primary and any insurance or self-insurance procured or maintained by the City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these requirements or is canceled and not replaced, the City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by the city will be promptly reimbursed by Contractor or the City will withhold amounts sufficient to pay premium from Contractor payments. In the alternative, the City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance or is on the List of Approved Surplus Line Insurers in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VII (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's risk manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Contractor or others providing insurance evidence in compliance with these

specifications to waive their right of recovery prior to a loss. Contractor hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Contractor acknowledges and agrees that any actual or alleged failure on the part of the City to inform Contractor of non-compliance with any requirement imposes no additional obligations on the City nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Contractor maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Contractor agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess/umbrella liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Contractor agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by Contractor, provide the same minimum insurance coverage and endorsements required of Contractor. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Contractor agrees that

upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise requirements. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Contractor a ninety (90)-day advance written notice of such change. If such change results in substantial additional cost to the Contractor, the City and Contractor may renegotiate Contractor's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by City. City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Contractor shall give City prompt and timely notice of claims made or suits instituted that arise out of or result from Contractor's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Contractor shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

ARTICLE 13 - CONTRACTOR'S LICENSE

Contractor must possess at the time of commencing work and throughout the Project duration, a Contractor's License, issued by the State of California, which is current and in good standing. Contractor shall ensure that any subcontractor working on the Project possesses at the time of commencing work and throughout the Project duration, a Contractor's License, issued by the State of California, which is current and in good standing.

ARTICLE 14 - CORPORATION IN GOOD STANDING

If Contractor is a corporation, the undersigned hereby represents and warrants that the corporation is duly incorporated and in good standing in the State of _____, and that _____ whose title is _____, is authorized to act for and bind the corporation.

ARTICLE 15 - PROVISIONS REQUIRED BY LAW

Each and every provision of law and clause required by law to be inserted in this Agreement shall be deemed to be inserted herein and the Agreement shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not currently inserted, then upon application of either

party the Agreement shall forthwith be physically amended to make such insertion or correction.

ARTICLE 16 - SUBSURFACE HAZARDOUS MATERIALS

A. In the event trenches or other excavations extend deeper than four (4) feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the City in writing of any:
   1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II or Class III disposal site in accordance with the provisions of existing law.
   2. Subsurface or latent physical conditions at the site differing from those indicated.
   3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the Work or the character provided for in the Agreement.

B. Upon receipt of said notification the City will investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of or the time required for performance of any part of the work, the City will issue a change order under the procedures described in the General Conditions.

C. In the event that a dispute arises between the City and the Contractor whether the conditions materially differ, or involve hazardous waste or cause a decrease or increase in the Contractor's cost of or time required for performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the Agreement, but shall proceed with all work to be performed under the Agreement. The Contractor shall retain any and all rights provided either by Agreement or by law which pertain to the resolution of disputes and protests between the contracting parties.

ARTICLE 17 - LIQUIDATED DAMAGES

Pursuant to Government Code Section 53069.85, if work is not completed within the contract time or in strict accordance with the Project Schedule, it is understood, acknowledged and agreed that the City will suffer damage. It is therefore agreed that the Contractor shall pay to the City the sum of two hundred fifty dollars ($250.00) for each and every calendar day of delay beyond the Contract Time, or beyond any completion schedule, construction schedule or Project milestones established in or

pursuant to the Project Schedule, or beyond the time indicated in the Project Schedule for any individual Contract activity.

Contractor expressly understands, acknowledges and agrees that such liquidated damages can and shall be imposed if the Contractor does not meet each and every aspect of any activity schedule, completion schedule, construction schedule or Project milestones established in or pursuant to the Project Schedule. If the City accepts work or makes any payment under this Agreement after a default by reason of delays, the acceptance of such work and/or payment(s) shall in no respect constitute a waiver or modification of any provisions regarding Contract Time, a completion schedule, the Project Construction Schedule or the accrual of liquidated damages. In the event the same is not paid, the Contractor further agrees that the City may deduct the amount thereof from any money due or that may become due the Contractor under the Agreement. This Article does not exclude recovery of damages under provisions of the Contract Documents, and is expressly in addition to the City's ability to seek other damages.

Contractor is to refer to the Project Construction Schedule for duration of individual activities. Liquidated damages may be assessed if any individual activity duration exceeds the time indicated for that activity on the Project Construction Schedule.

ARTICLE 18 - COMPONENT PARTS OF THE CONTRACT

This Agreement entered into consists of the following Contract Documents, all of which are component parts of the Agreement as if herein set out in full or attached hereto:

Request for Proposals
Exhibit A – Contractor's Proposal
Exhibit B – Cost Estimate Sheet
Exhibit C – Agreement for Construction
Exhibit D – Non-Collusion Affidavit
Exhibit E – Faithful Performance Bond
Site Visit Certification

All of the above named Contract Documents are intended to be complementary. Work required by one of the above named Contract Documents and not by others shall be done as if required by all.

Collectively the Contract Documents and this Agreement constitute the entire contract of the Parties. No other agreements or contracts, whether oral or written, pertaining to the work to be performed, exists between the parties. This Agreement can be modified only by an amendment in writing, signed by both Parties.

ARTICLE 19 - SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person

or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

ARTICLE 20 - COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

ARTICLE 21 - CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

ARTICLE 22 - WAIVER

The waiver by City or Contractor of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Contractor unless in writing.

ARTICLE 23 - REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

ARTICLE 24 - AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Contractor represents and warrants that he/she has the authority to execute this Agreement on behalf of the Contractor and has the authority to bind Contractor to the performance of its obligations hereunder.

"CITY"
City of Industry

By:_____
Paul J. Philips, City Manager

"CONTRACTOR"
INSERT NAME OF COMPANY

By:_____
Name, Title

Attest:

By:_____
Diane M. Schlichting, Chief Deputy City Clerk

Approved as to form:

By:_____
James M. Casso, City Attorney

CITY OF INDUSTRY

Request for Proposals ("RFP") Interior Upgrades and Code Complaince Repairs at 16200-5 Temple Avenue

CONTRACT NO. 2016-1006

CONTRACTOR:

_____

BUSINESS ADDRESS:

_____

_____

In submitting this bid for the project:

I, _____, state that I have not directly or indirectly,
(Name)
entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with the project.

I do hereby certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed at _____ California, this _____ day of _____, 201__.

_____
SIGNATURE

Bond No._____

Date:_____

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the CITY OF INDUSTRY has awarded to _____ _____ as principal, hereinafter designated as the "CONTRACTOR", a contract for the work described as:

Request for Proposals ("RFP") Interior Upgrades and Code Compliance Repairs at 16200-5 Temple Avenue

CONTRACT NO. 2016-1006

AND WHEREAS, the Contractor is required to furnish a bond in connection with said contract guaranteeing the faithful performance thereof;

NOW, THEREFORE, we, the undersigned Contractor and Surety, are held firmly bound unto the CITY OF INDUSTRY in the sum of_____ _____($_____), to be paid to the CITY OF INDUSTRY, its successors and assigns, for which payment will and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH:

NOW, THEREFORE, if said Contractor its officers, agents, employees, subcontractors, heirs, executors, administrators, successors, or assigns shall well and truly do and perform all of the covenants and obligations of said contract on his part to be done and performed at the times and in the manner specified herein, then this obligation shall be null and void, otherwise it shall be and remain in full force and effect;

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this_____day of_____, 201___.

_____ By: _____

CONTRACTOR Authorized Signature

_____ By: _____

SURETY COMPANY Authorized Signature

_____

SURETY COMPANY ADDRESS

November 23, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

Request for Proposals Addendum No. 1

CITY OF INDUSTRY

REQUEST FOR PROPOSALS FOR INTERIOR REPAIRS, MOLD AND TERMITE REMEDIATION, AND UPGRADES

CONTRACT NO. 2016-1006

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original Request for Proposal.

All other terms and conditions remain unchanged.

REQUEST FOR PROPOSALS

C. CONTENTS OF SUBMITTAL,

- Submittal of a Faithful Performance Bond shall be for a 100% of the contract price to guaranty faithful performance of all work, within the time prescribed, in a manner satisfactory to the City, and that all materials and workmanship will be free from original or developed defects. The Bond must remain in effect until the end of all warranty periods set forth in the contract documents.

END OF ADDENDUM

EXHIBIT D

City Council Agenda Item Approved on September 8, 2016

Consideration of Formal Bidding Activity for Repairs and Safety and Code Compliance at 16200-5 Temple Avenue and 16224 Temple Avenue, per City of Industry Municipal Code Section 3.52.040(A) Adoption of Plans and Bidding – Public Projects.

[Attached]

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Alex Gonzalez, Director of Development Services and Administration
William Hayes, Field Operations and Asset Superintendent

Date: September 8, 2016

SUBJECT: Consideration of Formal Bidding Activity for Repairs and Safety and Code Compliance at 16200-5 Temple Avenue and 16224 Temple Avenue, per City of Industry Municipal Code Section 3.52.040(A) Adoption of Plans and Bidding – Public Projects.

The City of Industry is required to maintain its buildings in a condition that is safe and meets all current code requirements. Informal procurements for the two properties, 16200-5 and 16224 Temple Avenue were recently completed. The results of the informal bids on these properties triggered the need to require for a formal bid for the work at 16200-5 Temple Avenue, and signaled the possibility of a formal bid requirement for 16224 Temple Avenue, if the cost of the total work including mold remediation is over $125,000.

The City of Industry Municipal Code Section 3.52.040 requires that all public works projects over $125,000 receive approval from the City Council prior to the release of a notice inviting bids. In order to complete and release a Request for Proposals for the properties in question, it is requested that the City Council consider staff's request to move forward with a formal procurement process for 16200-5 and 16224 Temple Avenue.

The issues identified at the properties are as follows:

<u>16200-5 Temple Avenue</u>

- Unfinished 20' by 50' addition that is not to code with exposed framing.
- Substandard electric service panel.
- Substandard plumbing, without proper venting and inadequate hot water heater.
- Inadequate HVAC for existing square footage, no HVAC in addition.
- Kitchen cabinets modified in a manner that damaged cabinet doors.
- Cracked and damaged tile throughout.
- Plumbing not to code in bathroom.
- Missing smoke detectors and carbon monoxide detectors throughout.

- Commercial fire alarm installed, must be removed.

16224 Temple Avenue

- Mold testing showed elevated levels of mold throughout the property.
- Visible mold damage to the naked eye in upstairs restroom, exterior walls, and underneath kitchen cabinets.
- Visible evidence of water leaks throughout.
- All areas affected with mold must be demolished and remediated to EPA specifications. Until the drywall is removed and the framing exposed, it is unclear what the extent of damage is to the property.
- Damaged and loose tile throughout the property.
- Multiple holes in drywall that expose insulation.
- Several locations with exposed wiring.
- Windows damaged and termite ridden.
- Missing smoke detectors and carbon monoxide detectors throughout.
- Relocate dryer vent, as it discharges directly into the HVAC condenser.
- HVAC repair / replace, depending on damage inflicted by lint.

If approved, a formal bidding process will commence using PlanetBids and any proposals over $100,000 will return to the City Council for approval in compliance with Code Section 3.52.404.

PJP:AG:WH:mk

CITY COUNCIL

ITEM NO. 6.8

CITY OF INDUSTRY

Incorporated June 18, 1957

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Tim Kolset, Project Manager TK

Date: December 8, 2016

SUBJECT: Consideration of Amendment No. 1 to Maintenance Services Agreement with Applied Metering Technologies, Inc. for Utility Operations and Maintenance Services in an amount not to exceed $105,000 through September 8, 2019

On September 8, 2016, the City of Industry approved a Maintenance Services Agreement with Applied Metering Technologies (AMT), Inc. for operation and maintenance services. The scope of the approved agreement includes maintenance and repairs of electric metering devices, meter reading, and for AMT to provide data to the City's billing contractor.

The budget for the original Maintenance Services Agreement only covered meter maintenance and repair costs and did not account for meter reading services, as the meter reading services were being conducted by another City contractor. Since approval of the AMT Maintenance Services Agreement, meter reading services have been added to the AMT contract scope in order to meet best utility billing practices, requiring an increase in the not to exceed amount from $15,000 to $105,000 to cover the meter reading services for the contracts three (3) year term. Along with the budget increase the amendment also includes minor changes to the scope of services to protect the City in the case of meter reading mistakes and/or schedule delays.

FISCAL IMPACT:

The recommended action will require an increase in the original agreement's allowance from $15,000 to $105,000. An appropriation of $90,000 is required from Electric Utility Reserves to the Electric Utility Fund Budget – Repair and Maintenance (Account no. 161-300-5550) for the amendment to the Maintenance Services Agreement.

RECOMMENDATIONS:

1. Staff is recommending that the City Council approve and adopt Amendment No. 1 to the Maintenance Services Agreement with Applied Metering Technologies, Inc.

2. Appropriate $90,000 from the Electric Utility Reserves to the Electric Utility Fund Budget – Repair and Maintenance (Account no. 161-300-5550)

Exhibits

A. Amendment No. 1 to Applied Metering Technologies, Inc. Maintenance Services Agreement dated October 13, 2016

B. Maintenance Services Agreement with Applied Metering Technologies, Inc. for Utility Operations and Maintenance Services dated September 8, 2016

PJP:TK

EXHIBIT A

Amendment No. 1 to Applied Metering Technologies, Inc. Maintenance Services Agreement dated October 13, 2016

[Attached]

AMENDMENT NO. 1
TO MAINTENANCE SERVICES AGREEMENT

This Amendment No. 1 to the Maintenance Services Agreement ("Agreement"), is made and entered into this 13th day of October, 2016, ("Effective Date") by and between the City of Industry, a California municipal corporation ("City") and Applied Metering Technologies, Inc., a California corporation ("Consultant"). The City and Consultant are hereinafter collectively referred to as the "Parties."

RECITALS

WHEREAS, on or about September 8, 2016, the City Council, approved a Maintenance Services Agreement with Applied Metering Technologies, Inc., to provide electric meter installation, maintenance metering and meter reading services; and

WHEREAS, on or about September 8, 2016, the Agreement was entered into and executed between the City and Consultant to perform electric meter installation, maintenance metering and meter reading services for the City; and

WHEREAS, the meter reading services duties will be transferred from ENCO Utility Services LLC to Applied Metering Technologies, Inc., per the City's best practices and the State Controller's recommendation; and

WHEREAS, the Parties desire to amend the Agreement to increase the compensation of the Agreement by $90,000, to allow Consultant to provide meter reading services; and

WHEREAS, for the reasons set forth herein, the City and Consultant desire to enter into this Amendment No. 1, as set forth below.

AMENDMENT

NOW, THEREFORE, in consideration of the mutual covenants, promises and agreements set forth herein, it is agreed the aforesaid Agreement, a copy of which is attached hereto as Exhibit A, and incorporated herein by reference, shall remain in full force and effect except as otherwise hereinafter provided:

Section 4. Payment
The second sentence of Section 4(a) is hereby amended to read in its entirety as follows:

This amount shall not exceed One Hundred Five Thousand Dollars ($105,000.00) for the total Term of the Agreement unless additional payment is approved as provided in this Agreement.

Exhibit A Scope of Services
The Scope of Services shall be amended to include the information set forth in Attachment 1, attached hereto and incorporated herein by reference.

Exhibit B Rate Schedule
The Rate Schedule shall be amended to include the information set forth in Attachment 2, attached hereto and incorporated herein by reference.

IN WITNESS WHEREOF, the Parties have executed this Amendment No. 1 to the Agreement as of the Effective Date.

"CITY"
City of Industry

By: _____
Paul Philips, City Manager

"CONSULTANT"
Applied Metering Technologies, Inc.

By: _____
Mario Natividad, President/CEO

Attest:

By: _____
Diane Schlichting, Chief Deputy City Clerk

APPROVED AS TO FORM

By: _____
James M. Casso, City Attorney

ATTACHMENT 1

SCOPE OF SERVICES

Meter Reading Services

Consultant shall provide all labor, materials, supervision, software, tools and transportation to deliver, at a minimum, monthly meter reading services prior to the date necessary to calculate, correlate and mail City electric bills to the City's electric customers. Consultant shall provide the following meter reading services:

- Monthly hand read meter data and process for billing;
- Monthly downloads of meter data and process for billing;
- Monthly remote and manual meter reading for all City of Industry owned meters;
- Establishment of consistent monthly meter reading schedule, to allow for coordination with the City's billing services contractor.
- Perform meter accuracy checks and cooperate with City and billing services contractor in auditing and checks of meter reading reliability.
- Prepare on a monthly basis or as needed or requested, meter reports detailing meters that are either non-accessible, non-readable, and/or non-operational. Troubleshooting of non-operational meters must be performed quickly and thoroughly to avoid impacting customer billing schedule.

Consultant shall provide customized formatting of statements & invoices to include customer account information, meters, accounts receivables, billing, payment plans, transaction history and general ledger activity. If requested by the City, the Consultant shall provide specialty reports that may include meter block consumption, standard consumption analysis and reports on rate tier levels.

ATTACHMENT 2

RATE SCHEDULE

Service	Cost
Meter Reading	$ 100 /hour

In no event shall the City reimburse Consultant for travel time related to the work performed under this Agreement. The above Rate Schedule shall include the costs of all equipment necessary to perform the Scope of Services. In the event Consultant requires additional equipment, outside of the customary equipment used to perform the Scope of Services, said equipment rental shall be approved by the City, and shall be reimbursed at the actual cost, without mark-up.

EXHIBIT B

Maintenance Services Agreement with Applied Metering Technologies, Inc. for Utility Operations and Maintenance Services dated September 8, 2016

[Attached]

CITY OF INDUSTRY

MAINTENANCE SERVICES AGREEMENT

This MAINTENANCE SERVICES AGREEMENT ("Agreement"), is made and effective as of September 8, 2016 ("Effective Date"), between the City of Industry, a municipal corporation ("City") and Applied Metering Technologies, Inc., a California corporation ("Consultant"). The City and Consultant are hereinafter collectively referred to as the "Parties".

RECITALS

WHEREAS, City desires to engage Consultant to perform the services described herein, and Consultant desires to perform such services in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions herein contained, City and Consultant agree as follows:

1. TERM

This Agreement shall commence on the Effective Date, and shall remain and continue in effect until tasks described herein are completed, but in no event later than September 8, 2019, unless sooner terminated pursuant to the provisions of this Agreement.

2. SERVICES

(a) Consultant shall perform the tasks ("Services") described and set forth in Exhibit A, attached hereto and incorporated herein as though set forth in full. ("Scope of Services"). Tasks other than those specifically described in the Scope of Services shall not be performed without prior written approval of the City. The Services shall be performed by Consultant, unless prior written approval is first obtained from the City. In the event of conflict or inconsistency between the terms of this Agreement and Exhibit A, the terms of this Agreement shall prevail.

(b) City shall have the right to request, in writing, changes to the Services. Any such changes mutually agreed upon by the Parties, and any corresponding increase or decrease in compensation, shall be incorporated by written amendment to this Agreement.

(c) Consultant shall perform all Services in a manner reasonably satisfactory to the City and in a first-class manner in conformance with the standards of quality normally observed by an entity providing electric meter installation and maintenance services, serving a municipal agency.

(d) Consultant shall comply with all applicable federal, state, and local laws, regulations and ordinances in the performance of this Agreement, including but not limited to, all labor laws, including any and all Cal/OSHA requirements, and the conflict

of interest provisions of Government Code Section 1090 and the Political Reform Act (Government Code Section 81000 *et seq.*)). During the term of this Agreement, Consultant shall not perform any work for another person or entity for whom Consultant was not working on the Effective Date if both (i) such work would require Consultant to abstain from a decision under this Agreement pursuant to a conflict of interest statute or law; and (ii) City has not consented in writing to Consultant's performance of such work. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* Consultant hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Consultant was an employee, agent, appointee, or official of the City in the previous twelve (12) months, Consultant warrants that it did not participate in any manner in the forming of this Agreement. Consultant understands that, if this Agreement is made in violation of Government Code §1090 *et. seq.*, the entire Agreement is void and Consultant will not be entitled to any compensation for Services performed pursuant to this Agreement, and Consultant will be required to reimburse the City for any sums paid to the Consultant. Consultant understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

(e) Consultant represents that it has, or will secure at its own expense, all licensed personnel required to perform the Services. This includes qualified electrical workers, in accordance with Cal/OSHA guidelines, for all work on energized conductors or equipment connected to energized high-voltage systems. All Services shall be performed by Consultant, and all personnel engaged in the Services shall be qualified and licensed to perform such services. In addition, a proven record of work safety must be provided and maintained by the Consultant, with records made available to the City upon request.

3. MANAGEMENT

City's City Manager, or his designee, shall represent the City in all matters pertaining to the administration of this Agreement, review and approval of all products submitted by Consultant, but shall have no authority to modify the Services or the compensation due to Consultant.

4. PAYMENT

(a) The City agrees to pay Consultant monthly, in accordance with the payment rates and terms and the schedule of payment as set forth in Exhibit B ("Rate Schedule"), attached hereto and incorporated herein by this reference as though set forth in full, based upon actual time spent on the above tasks. This amount shall not exceed Fifteen Thousand Dollars ($15,000.00) for the total Term of the Agreement unless additional payment is approved as provided in this Agreement.

(b) Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement which are in addition to those set forth herein, unless such additional services are authorized in advance and in writing by the City. Consultant shall be compensated for any additional services in the amounts and in the manner as agreed to by City and Consultant at the time City's written authorization is given to Consultant for the performance of said services.

(c) Consultant shall submit invoices monthly for actual services performed. Invoices shall be submitted on or about the first business day of each month, or as soon thereafter as practical, for services provided in the previous month. Payment shall be made within thirty (30) days of receipt of each invoice as to all non-disputed fees. If the City disputes any of Consultant's fees it shall give written notice to Consultant within thirty (30) days of receipt of an invoice of any disputed fees set forth on the invoice. Any final payment under this Agreement shall be made within 45 days of receipt of an invoice therefore.

5. LABOR CODE AND PREVAILING WAGES

(a) Consultant represents and warrants that it is aware of the requirements of California Labor Code Section 1720, *et seq.*, and 1770, *et seq.*, as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "Public Works" and "Maintenance" projects. If the Services are being performed as part of an applicable "Public Works" or "Maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $15,000.00 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. City shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant's principal place of business and any location where the Services are performed. Consultant shall indemnify, defend and hold harmless, the City, its elected officials, officers, employees and agents, from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, Consultant's or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant, failure or alleged failure to comply with Prevailing Wage Laws.

(b) In accordance with the requirements of Labor Code Section 1776, Consultant shall keep accurate payroll records which are either on forms provided by the Division of Labor Standards Enforcement or which contain the same information required by such forms. Consultant shall make all such records available for inspection at all reasonable hours.

(c) To the extent applicable, Cosultant shall comply with the provisions of Section 1777.5 of the Labor Code with respect to the employment of properly registered apprentices upon public works.

(d) Consultant shall comply with the legal days work and overtime requirements of Sections 1813 and 1815 of the Labor Code.

(e) If the Services are being performed as part of an applicable Public works or Maintenance project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants performing such Services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Agreement and require the same of any subconsultants, as applicable. This Services set forth in this Agreement may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements.

5. SUSPENSION OR TERMINATION OF AGREEMENT

(a) The City may at any time, for any reason, with or without cause, suspend or terminate this Agreement, or any portion hereof, by serving upon the Consultant at least ten (10) days prior written notice. Upon receipt of said notice, the Consultant shall immediately cease all work under this Agreement, unless the notice provides otherwise. If the City suspends or terminates a portion of this Agreement such suspension or termination shall not make void or invalidate the remainder of this Agreement.

(b) In the event this Agreement is terminated pursuant to this Section, the City shall pay to Consultant the actual value of the work performed up to the time of termination, provided that the work performed is of value to the City. Upon termination of the Agreement pursuant to this Section, the Consultant shall submit an invoice to the City pursuant to Section 5 of this Agreement.

6. OWNERSHIP OF DOCUMENTS

(a) Consultant shall maintain complete and accurate records with respect to sales, costs, expenses, receipts, and other such information required by City that relate to the performance of services under this Agreement. Consultant shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Consultant shall provide free access to the representatives of City or its designees at reasonable times to review such books and records; shall give City the right to examine and audit said books and records; shall permit City to make transcripts or copies therefrom as necessary; and shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement. Such records, together with supporting documents, shall be maintained for a period of three (3) years after receipt of final payment.

(b) Upon completion of, or in the event of termination or suspension of this Agreement, all original documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared in the course of providing the services to be performed pursuant to this Agreement shall become the sole property of the City and may be used, reused, or otherwise disposed of by the City without the permission of the Consultant. With respect to computer files, Consultant shall make available to the City, at the Consultant's office, and upon reasonable written request by the City, the necessary computer software and hardware for purposes of accessing, compiling, transferring, copying and/or printing computer files. Consultant hereby grants to City all right, title, and interest, including any copyright, in and to the documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared by Consultant in the course of providing the services under this Agreement. All reports, documents, or other written material developed by Consultant in the performance of the Services pursuant to this Agreement, shall be and remain the property of the City.

7. INDEMNIFICATION

(a) Indemnity for professional liability

When the law establishes a professional standard of care for Consultant's Services, to the fullest extent permitted by law, Consultant shall indemnify, protect, defend and hold harmless the City and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses, including legal counsel's fees and costs caused in whole or in part by any negligent or wrongful act, error or omission of Consultant, its officers, agents, employees or Subconsultants (or any agency or individual that Consultant shall bear the legal liability thereof) in the performance of professional services under this Agreement.

(b) Indemnity for other than professional liability

Other than in the performance of professional services and to the full extent permitted by law, Consultant shall indemnify, defend and hold harmless City, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this Agreement by Consultant or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant.

(c) DUTY TO DEFEND. In the event the City, its officers, employees, agents and/or volunteers are made a party to any action, claim, lawsuit, or other adversarial proceeding arising from the performance of the services encompassed by this Agreement, and upon demand by City, Consultant shall have an immediate duty to defend the City at Consultant's cost or at City's option, to reimburse the City for its costs of defense, including reasonable attorney's fees and costs incurred in the defense of such matters.

Payment by City is not a condition precedent to enforcement of this indemnity. In the event of any dispute between Consultant and City, as to whether liability arises from the sole negligence of the City or its officers, employees, or agents, Consultant will be obligated to pay for City's defense until such time as a final judgment has been entered adjudicating the City as solely negligent. Consultant will not be entitled in the absence of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

8. INSURANCE

Consultant shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit C attached hereto and incorporated herein by reference.

9. INDEPENDENT CONSULTANT

(a) Consultant is and shall at all times remain as to the City a wholly independent consultant and/or independent contractor. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultants exclusive direction and control. Neither City nor any of its officers, employees, or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that it or any of its officers, employees, or agents are in any manner officers, employees, or agents of the City. Consultant shall not incur or have the power to incur any debt, obligation, or liability whatever against the City, or bind the City in any manner.

(b) No employee benefits shall be available to Consultant in connection with the performance of this Agreement. Except for the fees paid to Consultant as provided in the Agreement, City shall not pay salaries, wages, or other compensation to Consultant for performing services hereunder for City. City shall not be liable for compensation or indemnification to Consultant for injury or sickness arising out of performing services hereunder.

10. LEGAL RESPONSIBILITIES

The Consultant shall keep itself informed of State and Federal laws and regulations which in any manner affect those employed by it or in any way affect the performance of its service pursuant to this Agreement. The Consultant shall at all times observe and comply with all such laws and regulations. The City, and its officers and employees, shall not be liable at law or in equity occasioned by failure of the Consultant to comply with this Section.

11. UNDUE INFLUENCE

Consultant declares and warrants that no undue influence or pressure was used against or in concert with any officer or employee of the City in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential

financial arrangement, or financial inducement. No officer or employee of the City has or will receive compensation, directly or indirectly, from Consultant, or from any officer, employee or agent of Consultant, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section shall be a material breach of this Agreement entitling the City to any and all remedies at law or in equity.

12. NO BENEFIT TO ARISE TO LOCAL OFFICERS AND EMPLOYEES

No member, officer, or employee of City, or their designees or agents, and no public official who exercises authority over or responsibilities with respect to the Project during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement, or the proceeds thereof, for work to be performed in connection with the Project performed under this Agreement.

13. RELEASE OF INFORMATION/CONFLICTS OF INTEREST

(a) All information gained by Consultant in performance of this Agreement shall be considered confidential and shall not be released by Consultant without City's prior written authorization. Consultant, its officers, employees, agents, or subconsultants, shall not without written authorization from the City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the work performed under this Agreement or relating to any project or property located within the City, unless otherwise required by law or court order. (b) Consultant shall promptly notify City should Consultant, its officers, employees, agents, or subconsultants be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions, or other discovery request ("Discovery"), court order, or subpoena from any person or party regarding this Agreement and the work performed there under or with respect to any project or property located within the City, unless Consultant is prohibited by law from informing the City of such Discovery, court order or subpoena. City retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding as allowed by law. Unless City is a party to the lawsuit, arbitration, or administrative proceeding and is adverse to Consultant in such proceeding, Consultant agrees to cooperate fully with the City and to provide the opportunity to review any response to discovery requests provided by Consultant. However, City's right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

14. NOTICES

Any notices which either party may desire to give to the other party under this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, which provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, addressed to the address of the party as set forth below or at any other address as that party may later designate by notice:

To City:	City of Industry 15625 E. Stafford, Suite 100 City of Industry, CA 91744 Attention: City Manager
With a Copy To:	James M. Casso, City Attorney Casso & Sparks, LLP 13200 Crossroads Parkway North, Suite 345 City of Industry, CA 91746
To Consultant:	Mario Natividad, President/CEO Applied Metering Technologies, Inc. 9244 Bermudez Street Pico Rivera, CA 90660

15. ASSIGNMENT

The Consultant shall not assign the performance of this Agreement, nor any part thereof, nor any monies due hereunder, without prior written consent of the City.

Before retaining or contracting with any subconsultant for any services under this Agreement, Consultant shall provide City with the identity of the proposed subconsultant, a copy of the proposed written contract between Consultant and such subconsultant which shall include and indemnity provision similar to the one provided herein and identifying City as an indemnified party, or an incorporation of the indemnity provision provided herein, and proof that such proposed subconsultant carries insurance at least equal to that required by this Agreement or obtain a written waiver from the City for such insurance.

Notwithstanding Consultant's use of any subconsultant, Consultant shall be responsible to the City for the performance of its subconstultant as it would be if Consultant had performed the Services itself. Nothing in this Agreement shall be deemed or construed to create a contractual relationship between the City and any subconsultant employed by Consultant. Consultant shall be solely responsible for payments to any subconsultants. Consultant shall indemnify, defend and hold harmless the Indemnified Parties for any claims arising from, or related to, the services performed by a subconsultant under this Agreement.

16. GOVERNING LAW/ATTORNEYS' FEES

The City and Consultant understand and agree that the laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement and also govern the interpretation of this Agreement. Any litigation concerning this Agreement shall take place in the municipal, superior, or federal district court in Los Angeles County, California. If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of or relating to the Services provided by Consultant under this Agreement, the prevailing party shall be entitled to reasonable

attorneys' fees and all related costs, including costs of expert witnesses and consultants, as well as costs on appeal, in addition to any other relief to which it may be entitled.

17. ENTIRE AGREEMENT

This Agreement contains the entire understanding between the Parties relating to the obligations of the Parties described in this Agreement. All prior or contemporaneous agreements, understandings, representations, and statements, oral or written and pertaining to the subject of this Agreement or with respect to the terms and conditions of this Agreement, are merged into this Agreement and shall be of no further force or effect. Each party is entering into this Agreement based solely upon the representations set forth herein and upon each party's own independent investigation of any and all facts such party deems material.

18. SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

19. COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

20. CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

21. WAIVER

The waiver by City or Consultant of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Consultant unless in writing.

22. REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in

equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

23. AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Consultant represents and warrants that he/she has the authority to execute this Agreement on behalf of the Consultant and has the authority to bind Consultant to the performance of its obligations hereunder.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the Effective Date.

"CITY"
City of Industry

By: Paul J. Philips
Paul Philips, City Manager

"CONSULTANT"
Applied Metering Technologies, Inc.

By: Mario Natividad
Mario Natividad, President/CEO

Attest:

By: Diane M. Schlichting
~~Cecelia Dunlap, Deputy City Clerk~~
Diane M. Schlichting, Chief Deputy City Clerk

Approved as to form:

By: James M. Casso
James M. Casso, City Attorney

Attachments:	Exhibit A	Scope of Services
	Exhibit B	Rate Schedule
	Exhibit C	Insurance Requirements

EXHIBIT A

SCOPE OF SERVICES

Consultant shall perform electric meter installation and maintenance metering services, which shall include, but is not limited to:

- Instrument Current Transformers ("CTs") and Potential Transformer ("PTs"), all secondary wiring from meter to CTs and test switches;
- Coordinate with the City's Utility Operations Management and City's engineering and construction contractors to ensure the City's meter system is accurate, reliable and functioning properly;
- New electric meter installation including CTs, test switches, and secondary wiring;
- Replacement of defective meters and CTs with new on emergency repairs or regular maintenance;
- Turn-offs / turn-ons for non-payment, if needed;
- Meter programming and commissioning;
- Meter testing for accuracy to ensure proper billing;
- Service investigations, troubleshooting meter issues and reported problems;
- Generation and build of programs for new meter rates;
- Meter engineering support;
- California Independent System Operator ("ISO") meter certification, testing, and programming support.
- Maintain an inventory of parts and equipment necessary to support and execute the scope of services, as detail in Exhibit D.

Meter Reading Services

Consultant shall provide all labor, materials, supervision, software, tools and transportation to deliver meter reading services to the City. Consultant shall provide the following meter reading services:

- Hand read meter data and process for billing;
- Download meter data and process for billing;

- Maintain hourly data for three (3) interconnect meters on server that can be remotely accessed by IPUC; and

- Prepare Line Loss Reports Monthly.

Consultant shall provide customized formatting of statements & invoices to include customer account information, meters, accounts receivables, billing, payment plans, transaction history and general ledger activity. Specialty reports shall include meter block consumption, standard consumption analysis and reports on rate tier levels.

Consultant shall comply with all Payment Card Industry (PCI) Data Security Standards through its interactions with credit card processors, such as authorize.net, and financial institutions, such as Bank of America.

Response Time

Service call schedules will be available on Thursday, the week prior to service. End-customer appointments will be made, if required and the City furnishes the customer name and contact information. Emergency service calls shall be responded to within two (2) hours. Normal service hours shall be considered Monday – Friday from 8:00 am – 4:30 pm. In the event of an emergency, Mario Natividad, President/CEO is available 24/7 and can be contacted directly at (562) 505-9000.

EXHIBIT B

RATE SCHEDULE

Contractor shall charge the City the following hourly rates for services rendered pursuant to the Scope of Services ("Exhibit A") set forth herein.

Service	Cost
Meter Technician	$ 140 /hour
CA-ISO Meter Technician	$ 160 /hour
Overtime, Meter Technician (Saturdays and weekdays over 8hrs)	$ 210 /hour
Double Time, Meter Technician (Sundays and weekdays over 12 hours)	$ 280 /hour
Engineering Services	$ 210 /hour
Comm Cable Extensions, 6′ - 200′, up to 10′ high	$ 225 /extension
Com Cable Extensions, 201′ - 400′, up to 10′ high	$ 290 /extension
Comm Cable Extensions, 6′ - 200′, 11′ to 30′ high	$ 320 /extension
Comm Cable Extensions, 201′ - 400′, 11′ to 30′ high	$ 390 /extension

City shall reimburse Consultant its actual costs for all meters, metering equipment and shipping costs, upon submittal of evidence of said costs along with the monthly invoice, as set forth in the Agreement. In no event shall the City reimburse Consultant for travel time related to the work performed under this Agreement. The above Rate Schedule shall include the costs of all equipment necessary to perform the Scope of Services. In the event Consultant requires additional equipment, outside of the customary equipment used to

perform the Scope of Services, said equipment rental shall be approved by the City, and shall be reimbursed at the actual cost, without mark-up.

EXHIBIT C

INSURANCE REQUIREMENTS

Without limiting Consultant's indemnification of City, and prior to commencement of the Services, Consultant shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to Agency.

General liability insurance. Consultant shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $1,000,000.00 per occurrence, $2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Consultant shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Consultant arising out of or in connection with Work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000.00 combined single limit for each accident.

Professional liability (errors & omissions) insurance. Consultant shall maintain professional liability insurance that covers the Services to be performed in connection with this Agreement, in the minimum amount of $1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this agreement and Consultant agrees to maintain continuous coverage through a period no less than three years after completion of the services required by this agreement.

Workers' compensation insurance. Consultant shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000.00).

Consultant shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of Agency, its officers, agents, employees and volunteers.

Proof of insurance. Consultant shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this contract. City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may

arise from or in connection with the performance of the Services hereunder by Consultant, his agents, representatives, employees or subconsultants.

Primary/noncontributing. Coverage provided by Consultant shall be primary and any insurance or self-insurance procured or maintained by City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Consultant, or City will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Consultant acknowledges and agrees that any actual or alleged failure on the part of the City to inform Consultant of non-compliance with any requirement imposes no additional obligations on the Agency nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Consultant agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Consultant agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by Consultant, provide the same minimum insurance coverage and endorsements required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Consultant agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise specifications. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Consultant ninety (90) days advance written notice of such change. If such change results in substantial additional cost to the Consultant, the City and Consultant may renegotiate Consultant's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Consultant shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from Consultant's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Consultant shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

EXHIBIT D

INVENTORY LIST - PARTS AND EQUIPMENT

CTs
200:5 Amp, bar-type, 4 sets (3 each per set for a total of 12)
400:5 Amp, bar-type, 4 sets
400:5 Amp, bar-type, with RF=4, 1 set (RF=4 means that the CTs can be used on services up to 4 times 400 amps, or 1600 amps)
800:5 Amp, bar-type, 1 set
800:5 Amp, window-type, 1 set
1200:5 Amp, window-type, 6 sets
1500:5 Amp, window-type, 2 sets
2000:5 Amp, window-type, 5 sets

Test Switches
Pre-wired test switches (used to connect CT rated meters to CTs) see attached photo, 6 each

Meters
Form 9S, CT rated, Vectron (refurbished)
Form 9S, CT rated, ABB (refurbished)
Form 9S, CT rated, ABB A3
Form 5S, CT rated Vectron (refurbished
Form 2S, 240v, self-contained
These meters are in multiple quantities.

CITY COUNCIL

ITEM NO. 6.9

CITY OF INDUSTRY

Incorporated June 18, 1957

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Tim Kolset, Project Manager TK

Date: December 8, 2016

SUBJECT: Consideration of a Professional Services Agreement with ENCO Utility Services LLC for Utility Customer Account Services in an amount not to exceed $90,000 from December 8, 2016 to December 8, 2019

On June 16, 2016, the Industry Public Utilities Commission ("IPUC") directed staff to issue a Request for Qualifications ("RFQ") for Electric Utility Services Bench. The RFQ was posted in the City's PlanetBids™ vendor portal and an email notification was sent out to all registered vendors. The appropriate trade journals were notified and included Bid America, Southern California Builders Association, Construction Bidboard and Dodge Data & Analytics on June 16, 2016. The RFQ was advertised on Tuesday, June 21, 2016 and Tuesday, June 28, 2016 in the San Gabriel Valley Tribune. Qualifications were received up until July 7, 2016 at 1:00 pm.

The selection panel evaluated the qualifications received by each contractor based on the following criteria:

A. Contractor is experienced operating and managing an electric utility;
B. The contractor described how they can provide professional, first-class service; and
C. The account manager and team members assigned to the project have prior experience in similar programs and activities.

An RFQ Bench allows for evaluators to determine if multiple contractors are qualified to perform the work. Price is not a determining factor in a Request for Qualifications. Proposers submitted a separate document in PlanetBids™ with labor rates, and those documents were not opened until the IPUC board provided recommendations to staff. Proposers who were not chosen did not have their price proposals viewed by staff. Based on the Statement of Qualifications submitted, the selection panel determined the following categories were reasonable and appropriate for electric utility services.

The following tables summarize the statement of qualification rankings.

Table 1 – Summary of Utility Billing Rankings

Firm	Rank
ENCO Utility Services	1

Based on the rankings, staff recommended to the IPUC that ENCO Utility Services LLC ("ENCO") be awarded a Professional Services Agreement for Utility Customer Account Services.

On July 11, 2016, the IPUC directed staff to enter into negotiations with ENCO for Utility Customer Account Services. Staff was able to negotiate a Professional Services Agreement with ENCO.

Contract Scope

Contractor scope of services will include customer and account services, billing, collection, record/reporting management and call center operations related to billing and electric outages.

Fiscal Impact

Approval would require an appropriation of $90,000 from Electric Utility Reserves to the Electric Utility Fund Budget – Professional Services (Account no. 161-300-5120.01) for the Professional Services Agreement.

Recommendations

1. Staff recommends that the City Council award ENCO Utility Services LLC ("ENCO") a Professional Services Agreement for Customer Account Services.

2. Appropriate $90,000 from Electric Utility Reserves to the Electric Utility Fund Budget – Professional Services (Account no. 161-300-5120.01)

Exhibits

A. Professional Services Agreement with ENCO Utility Services for Customer Account Services dated December 8, 2016

PJP:TK

EXHIBIT A

Professional Services Agreement with ENCO Utility Services LLC for Utility Customer Account Services dated December 8, 2016

[Attached]

CITY OF INDUSTRY

PROFESSIONAL SERVICES AGREEMENT

This PROFESSIONAL SERVICES AGREEMENT ("Agreement"), is made and effective as of December 8, 2016 ("Effective Date"), between the City of Industry, a municipal corporation ("City") and ENCO Utility Services LLC, a Delaware limited liability company ("Consultant"). The City and Consultant are hereinafter collectively referred to as the "Parties".

RECITALS

WHEREAS, City desires to engage Consultant to perform the services described herein, and Consultant desires to perform such services in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions herein contained, City and Consultant agree as follows:

1. TERM

This Agreement shall commence on the Effective Date, and shall remain and continue in effect until tasks described herein are completed, but in no event later than December 8, 2019, unless sooner terminated pursuant to the provisions of this Agreement.

2. SERVICES

(a) Consultant shall perform the tasks ("Services") described and set forth in Exhibit A, attached hereto and incorporated herein as though set forth in full. ("Scope of Services"). Tasks other than those specifically described in the Scope of Services shall not be performed without prior written approval of the City. The Services shall be performed by Consultant, unless prior written approval is first obtained from the City. In the event of conflict or inconsistency between the terms of this Agreement and Exhibit A, the terms of this Agreement shall prevail.

(b) City shall have the right to request, in writing, changes to the Services. Any such changes mutually agreed upon by the Parties, and any corresponding increase or decrease in compensation, shall be incorporated by written amendment to this Agreement.

(c) Consultant shall perform all Services in a manner reasonably satisfactory to the City and in a first-class manner in conformance with the standards of quality normally observed by an entity providing utility billing services, serving a municipal agency.

(d) Consultant shall comply with all applicable federal, state, and local laws, regulations and ordinances in the performance of this Agreement, including but not limited to, the conflict of interest provisions of Government Code Section 1090 and the Political Reform Act (Government Code Section 81000 *et seq.*)). During the term of this

Agreement, Consultant shall not perform any work for another person or entity for whom Consultant was not working on the Effective Date if both (i) such work would require Consultant to abstain from a decision under this Agreement pursuant to a conflict of interest statute or law; and (ii) City has not consented in writing to Consultant's performance of such work. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* Consultant hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Consultant was an employee, agent, appointee, or official of the City in the previous twelve (12) months, Consultant warrants that it did not participate in any manner in the forming of this Agreement. Consultant understands that, if this Agreement is made in violation of Government Code §1090 *et. seq.*, the entire Agreement is void and Consultant will not be entitled to any compensation for Services performed pursuant to this Agreement, and Consultant will be required to reimburse the City for any sums paid to the Consultant. Consultant understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

(e) Consultant represents that it has, or will secure at its own expense, all licensed personnel required to perform the Services. All Services shall be performed by Consultant or under its supervision, and all personnel engaged in the Services shall be qualified and licensed to perform such services.

3. MANAGEMENT

City's City Manager, or his designee, shall represent the City in all matters pertaining to the administration of this Agreement, review and approval of all products submitted by Consultant, but shall have no authority to modify the Services or the compensation due to Consultant.

4. PAYMENT

(a) The City agrees to pay Consultant monthly, in accordance with the payment rates and terms and the schedule of payment as set forth in Exhibit B ("Rate Schedule"), attached hereto and incorporated herein by this reference as though set forth in full, based upon actual time spent on the above tasks. This amount shall not exceed Ninety Thousand Dollars ($90,000.00) for the total Term of the Agreement unless additional payment is approved as provided in this Agreement.

(b) Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement which are in addition to those set forth herein, unless such additional services are authorized in advance and in writing by the City. Consultant shall be compensated for any additional services in the amounts and in the manner as agreed to by City and Consultant at the time City's written authorization is given to Consultant for the performance of said services.

(c) Consultant shall submit invoices monthly for actual services performed. Invoices shall be submitted on or about the first business day of each month, or as soon thereafter as practical, for services provided in the previous month. Payment shall be made within thirty (30) days of receipt of each invoice as to all non-disputed fees. If the City disputes any of Consultant's fees it shall give written notice to Consultant within thirty (30) days of receipt of an invoice of any disputed fees set forth on the invoice. Any final payment under this Agreement shall be made within 45 days of receipt of an invoice therefore.

5. SUSPENSION OR TERMINATION OF AGREEMENT

(a) The City may at any time, for any reason, with or without cause, suspend or terminate this Agreement, or any portion hereof, by serving upon the Consultant at least ten (10) days prior written notice. Upon receipt of said notice, the Consultant shall immediately cease all work under this Agreement, unless the notice provides otherwise. If the City suspends or terminates a portion of this Agreement such suspension or termination shall not make void or invalidate the remainder of this Agreement. Consultant may at any time, for any reason, with or without cause, suspend or terminate this Agreement, or any portion hereof, by serving upon the City at least ninety (90) days prior written notice

(b) In the event this Agreement is terminated pursuant to this Section, the City shall pay to Consultant the actual value of the work performed up to the time of termination, provided that the work performed is of value to the City. Upon termination of the Agreement pursuant to this Section, the Consultant shall submit an invoice to the City pursuant to Section 5 of this Agreement.

6. OWNERSHIP OF DOCUMENTS

(a) Consultant shall maintain complete and accurate records with respect to sales, costs, expenses, receipts, and other such information required by City that relate to the performance of services under this Agreement. Consultant shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Consultant shall provide free access to the representatives of City or its designees at reasonable times to review such books and records; shall give City the right to examine and audit said books and records; shall permit City to make transcripts or copies therefrom as necessary; and shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement. Such records, together with supporting documents, shall be maintained for a period of three (3) years after receipt of final payment.

(b) Upon completion of, or in the event of termination or suspension of this Agreement, all original documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared in the course of providing the services to be performed pursuant to this Agreement shall become the sole property of the City and may be used, reused, or otherwise disposed of by the City without the permission of the Consultant. With respect to computer files, Consultant shall make available to the City, at the Consultant's office, and upon reasonable written request by the City, the necessary computer software and hardware for

purposes of accessing, compiling, transferring, copying and/or printing computer files. Consultant hereby grants to City all right, title, and interest, including any copyright, in and to the documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared by Consultant in the course of providing the services under this Agreement. All reports, documents, or other written material developed by Consultant in the performance of the Services pursuant to this Agreement, shall be and remain the property of the City.

7. INDEMNIFICATION

(a) Indemnity for professional liability

When the law establishes a professional standard of care for Consultant's Services, to the fullest extent permitted by law, Consultant shall indemnify, protect, defend and hold harmless the City and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses, including legal counsel's fees and costs caused in whole or in part by any negligent or wrongful act, error or omission of Consultant, its officers, agents, employees or Subconsultants (or any agency or individual that Consultant shall bear the legal liability thereof) in the performance of professional services under this Agreement.

(b) Indemnity for other than professional liability

Other than in the performance of professional services and to the full extent permitted by law, Consultant shall indemnify, defend and hold harmless City, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this Agreement by Consultant or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant.

(c) DUTY TO DEFEND. In the event the City, its officers, employees, agents and/or volunteers are made a party to any action, claim, lawsuit, or other adversarial proceeding arising from the performance of the services encompassed by this Agreement, and upon demand by City, Consultant shall have an immediate duty to defend the City at Consultant's cost or at City's option, to reimburse the City for its costs of defense, including reasonable attorney's fees and costs incurred in the defense of such matters.

Payment by City is not a condition precedent to enforcement of this indemnity. In the event of any dispute between Consultant and City, as to whether liability arises from the sole negligence of the City or its officers, employees, or agents, Consultant will be obligated to pay for City's defense until such time as a final judgment has been entered adjudicating the City as solely negligent. Consultant will not be entitled in the absence of such a determination to

any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

8. INSURANCE

Consultant shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit C attached hereto and incorporated herein by reference.

9. INDEPENDENT CONSULTANT

(a) Consultant is and shall at all times remain as to the City a wholly independent consultant and/or independent contractor. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultants exclusive direction and control. Neither City nor any of its officers, employees, or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that it or any of its officers, employees, or agents are in any manner officers, employees, or agents of the City. Consultant shall not incur or have the power to incur any debt, obligation, or liability whatever against the City, or bind the City in any manner.

(b) No employee benefits shall be available to Consultant in connection with the performance of this Agreement. Except for the fees paid to Consultant as provided in the Agreement, City shall not pay salaries, wages, or other compensation to Consultant for performing services hereunder for City. City shall not be liable for compensation or indemnification to Consultant for injury or sickness arising out of performing services hereunder.

10. LEGAL RESPONSIBILITIES

The Consultant shall keep itself informed of State and Federal laws and regulations which in any manner affect those employed by it or in any way affect the performance of its service pursuant to this Agreement. The Consultant shall at all times observe and comply with all such laws and regulations. The City, and its officers and employees, shall not be liable at law or in equity occasioned by failure of the Consultant to comply with this Section.

11. UNDUE INFLUENCE

Consultant declares and warrants that no undue influence or pressure was used against or in concert with any officer or employee of the City in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential financial arrangement, or financial inducement. No officer or employee of the City has or will receive compensation, directly or indirectly, from Consultant, or from any officer, employee or agent of Consultant, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section shall be a material breach of this Agreement entitling the City to any and all remedies at law or in equity.

12. NO BENEFIT TO ARISE TO LOCAL OFFICERS AND EMPLOYEES

No member, officer, or employee of City, or their designees or agents, and no public official who exercises authority over or responsibilities with respect to the Project during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement, or the proceeds thereof, for work to be performed in connection with the Project performed under this Agreement.

13. RELEASE OF INFORMATION/CONFLICTS OF INTEREST

(a) All information gained by Consultant in performance of this Agreement shall be considered confidential and shall not be released by Consultant without City's prior written authorization. Consultant, its officers, employees, agents, or subconsultants, shall not without written authorization from the City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the work performed under this Agreement or relating to any project or property located within the City, unless otherwise required by law or court order. (b) Consultant shall promptly notify City should Consultant, its officers, employees, agents, or subconsultants be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions, or other discovery request ("Discovery"), court order, or subpoena from any person or party regarding this Agreement and the work performed there under or with respect to any project or property located within the City, unless Consultant is prohibited by law from informing the City of such Discovery, court order or subpoena. City retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding as allowed by law. Unless City is a party to the lawsuit, arbitration, or administrative proceeding and is adverse to Consultant in such proceeding, Consultant agrees to cooperate fully with the City and to provide the opportunity to review any response to discovery requests provided by Consultant. However, City's right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

14. NOTICES

Any notices which either party may desire to give to the other party under this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, which provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, addressed to the address of the party as set forth below or at any other address as that party may later designate by notice:

To City: City of Industry
15625 E. Stafford, Suite 100
City of Industry, CA 91744

Attention: City Manager

With a Copy To:	James M. Casso, City Attorney Casso & Sparks, LLP 13200 Crossroads Parkway North, Suite 345 City of Industry, CA 91746
To Consultant:	Ruby M. Irigoyen, Senior Vice President ENCO Utility Services LLC 8141 East Kaiser Boulevard, Suite 212 Anaheim, CA 92808

15. ASSIGNMENT

The Consultant shall not assign the performance of this Agreement, nor any part thereof, nor any monies due hereunder, without prior written consent of the City.

Before retaining or contracting with any subconsultant for any services under this Agreement, Consultant shall provide City with the identity of the proposed subconsultant, a copy of the proposed written contract between Consultant and such subconsultant which shall include and indemnity provision similar to the one provided herein and identifying City as an indemnified party, or an incorporation of the indemnity provision provided herein, and proof that such proposed subconsultant carries insurance at least equal to that required by this Agreement or obtain a written waiver from the City for such insurance.

Notwithstanding Consultant's use of any subconsultant, Consultant shall be responsible to the City for the performance of its subconstultant as it would be if Consultant had performed the Services itself. Nothing in this Agreement shall be deemed or construed to create a contractual relationship between the City and any subconsultant employed by Consultant. Consultant shall be solely responsible for payments to any subconsultants. Consultant shall indemnify, defend and hold harmless the Indemnified Parties for any claims arising from, or related to, the services performed by a subconsultant under this Agreement.

16. GOVERNING LAW/ATTORNEYS' FEES

The City and Consultant understand and agree that the laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement and also govern the interpretation of this Agreement. Any litigation concerning this Agreement shall take place in the municipal, superior, or federal district court in Los Angeles County, California. If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of or relating to the Services provided by Consultant under this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and all related costs, including costs of expert witnesses and consultants, as well as costs on appeal, in addition to any other relief to which it may be entitled.

17. ENTIRE AGREEMENT

This Agreement contains the entire understanding between the Parties relating to the obligations of the Parties described in this Agreement. All prior or contemporaneous agreements, understandings, representations, and statements, oral or written and pertaining to the subject of this Agreement or with respect to the terms and conditions of this Agreement, are merged into this Agreement and shall be of no further force or effect. Each party is entering into this Agreement based solely upon the representations set forth herein and upon each party's own independent investigation of any and all facts such party deems material.

18. SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

19. COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

20. CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

21. WAIVER

The waiver by City or Consultant of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Consultant unless in writing.

22. REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

23. AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Consultant represents and warrants that he/she has the authority to execute this Agreement on behalf of the Consultant and has the authority to bind Consultant to the performance of its obligations hereunder.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the Effective Date.

"CITY"
City of Industry

By:_____
Paul J. Philips, City Manager

"CONSULTANT"
ENCO Utility Services, LLC

By_____
Ruby M. Irigoyen, Senior Vice President

Attest:

By:_____
Diane M. Schlichting, Chief Deputy City Clerk

Approved as to form:

By:_____
James M. Casso, City Attorney

Attachments:	Exhibit A	Scope of Services
	Exhibit B	Rate Schedule
	Exhibit C	Insurance Requirements

EXHIBIT A

SCOPE OF SERVICES

Consultant shall provide the following Customer Account Services for customers receiving electric services from the Industry Public Utilities Commission ("IPUC"), consistent with the IPUC electric rate structure and in accordance with all amendments and/or modifications to the electric rate structure adopted by the IPUC:

SECTION 1. ESTABLISHMENT AND MAINTENANCE OF ACCOUNTS

1.1 ESTABLISHMENT OF ACCOUNTS

- Consultant shall establish an account for each customer in its billing system.
- Consultant shall maintain the established customer's account.
- Consultant shall record and update changes to the customer's account including, at a minimum, name, service address, mailing address and telephone number changes.
- Consultant shall utilize a secure data collection system, portal or other method for collecting, uploading, and storing confidential data to include social security numbers, and other sensitive personal information.

1.2 CITY CUSTOMER DEPOSIT REQUIREMENTS

- Consultant shall collect IPUC Customer Deposits for the City
- Consultant shall deposit, on a daily basis, the collected funds with the City.
- Consultant shall notify the City of deposits and account activity through facsimile and email each day that deposits are made and include, at a minimum the date and amount of the Customer deposit(s).
- Customers will be entitled to refunds in accordance with applicable law, credit policies and procedures as described in the IPUC electric rate structure.
- Consultant shall notify the City when customer deposits are required to be returned.
- Consultant shall notify the City of interest due on a Customer's deposit, as described in the applicable City's Tariffs.
- City will issue a deposit re-payment to the electric customer within 10 days of the City's determination of the customer's refund deposits
- City checks will be forwarded to Consultant for customer distribution.

1.3 TERMINATION OF ACCOUNT

- Consultant shall terminate a customer's service using a City selected field contractor
- Termination of an account will be implemented if the Customer cancels their electric service, or for nonpayment of City charges as described in the applicable City's Tariff.

- Consultant shall not terminate a customer's account for any other reason, without the City's approval.

1.4 BILLING REPORTS

- Prior to the end of each month, Consultant shall submit electronically and by mail, a billing report notifying the City of the following:
    - The number of Accounts established and terminated;
    - The total number of accounts and aggregate amount of City charges billed;
    - The aggregate amount of adjustments to City charges previously billed or collected;
    - Any inquiries from customers and the resolution of those inquiries; and
    - Any other information requested by the City

SECTION 2. CUSTOMER BILLING PROCEDURES

2.1 CALCULATION OF CITY CHARGES

- Consultant shall calculate City charges for customers receiving electric services based on IPUC electric rate structure and applicable usage data.
- Consultant shall screen customer usage data for accuracy in accordance with standard practices prior to calculating City charges.
- Consultant shall include City charges on the customer's account statement on the next scheduled billing date.
    - In the event that Consultant does not receive usage data or other information necessary to calculate the City Charges by the required date, Consultant shall include the information in the following customer's account statement or in an interim bill that will reflect the customer's usage to date or estimated usage based on City policies, good industry practice and City's Tariffs.

2.2 CUSTOMER ACCOUNT STATEMENT

- Consultant shall bill customers monthly for City charges in accordance with the customer's billing cycle schedule.
- Consultant and the City shall determine the substance, format, and billing cycle schedule for all customer accounts.
- Consultant shall include any insert requested by the City to be included in a customer's monthly account statement.
    - The City will be responsible for the incremental costs associated with the inserts.
- Consultant shall, at its sole cost and expense, mail Customer bills through the U.S. mail service.
    - The City will be responsible for any additional postage costs associated with any mailings to customers requested by the City.

- Consultant shall, at the request of the City, work with the City to establish online services to enable Customers access to their billing information and to make online payments.
- The City will be responsible for funding the cost of initial set up of online bill service, including merchant bank fees and charges for online payment processing.
- Any online payment system shall comply with best practices, and shall be developed in a manner that provides a secure site for users.
- There is no additional charge to the City for processing mailed in customer payments.

2.3 ADJUSTMENTS TO CITY CHARGES

- Consultant shall attempt to resolve all customer disputes relating to City charges in accordance with policies and procedures described in IPUC electric rate structure.
- The City will maintain the responsibility for resolving customer disputes regarding IPUC electric rate structure, including:
    - Disputes regarding the terms and application of specific rate schedules.
    - Consultant shall refer all such inquiries and disputes to the City, within 10 days of receipt, or as sooner required under the IPUC electric rate structure.

- Approved adjustments to a customer's City charges will appear on the customer's following account statement or interim statement.
- Overcharges previously paid by a Customer shall, as permitted by IPUC electric rate structure, be credited to the customer's on the following account statement or statement.
- Consultant shall have no obligation to return or pay such amounts to Customer.

SECTION 3. CUSTOMER PAYMENTS

3.1 PROCESSING

- Consultant shall process all payments received from customers by remitting such payments to the City.
- Payments received will be deemed the property of the City, and shall be held in trust for the City.
- Payments received by Consultant shall not be deemed payments to Consultant.

3.2 PARTIAL PAYMENTS; PRIORITY

- Consultant shall credit partial payments received from a customer in accordance with the City's established Tariff.

SECTION 4. COLLECTION AND NONPAYMENT

4.1 COLLECTION OF CITY CHARGES BY CONSULTANT

- Consultant shall collect City Charges in accordance with IPUC electric rate structure
- Consultant shall notify customers of overdue City charges in accordance with the applicable laws and IPUC electric rate structure.
- Consultant shall reconcile amounts collected against City charges for each customer account and identify customer accounts with past due balances.
- Collection of customer charges will be processed by mail-in payment, electronically or as requested by the City.
- Consultant shall be responsible for the receiving and processing of customer payments.
- Payments received by Consultant, shall be held in trust for the City, and deposited into the City's designated bank account within 24 business hours of receipt.
- Consultant shall provide training to City staff and access to Consultant's billing system and customer information systems remotely at no additional charge.

4.2 NONPAYMENT OF CITY CHARGES

- Consultant shall pursue collection of unpaid, overdue amounts from customers in accordance with IPUC electric rate structure and collection policies.

4.3 TERMINATION OF CUSTOMER'S ELECTRIC SERVICES

- Consultant shall terminate a customer's electric services for nonpayment of City charges in accordance with the termination policies and procedures described in the City of Industry Tariff, Electric Rule 11 – Discontinuance and Restoration of Service.

4.4 USE OF COLLECTION AGENCY

- If desired by the City, Consultant shall work with the City to identify and select a collection agency(s) to assist with collection efforts.
  - The collection agency will be used in accordance with IPUC electric rate structure and only collect unpaid City charges after customer's electric service has been terminated.
  - Payment of fees charged by the collection agency shall be the responsibility of the City.

SECTION 5. CUSTOMER INQUIRIES

5.1 TOLL FREE TELEPHONE NUMBER

- Consultant shall make a 24/7 toll free telephone number available on each customer's account statement and to potential customers for inquiries related to the IPUC's Electric Services including:
  - Customer inquiries regarding City charges; and

- Other matters concerning Customer account statements, outages, usage, payments, deposits, IPUC electric rate structure, turn-ons, turn-offs and transfers of electric services

In the event of an emergency power outage, Consultant shall immediately, dispatch the outage to the City's emergency response contractor to inform it that a power outage has occurred. Consultant shall contact and follow-up with the IPUC's affected customers every 1.5 to 2 hours, or as requested by the IPUC customer, and City's emergency response contractor until power has been restored and to ensure that the IPUC customer operations, business or dwelling is receiving power without disruptions to the power supply. Consultant shall provide the number to the City upon execution of this Agreement. City will require the City's emergency response contractor to provide estimated time of restoration within one hour of arrival and assessment of the outage situation / site. Emergency response contractor will provide updates to the Consultant every 1.5 to 2 hours thereafter until service is restored.

5.2 RESPONSIBILITIES OF ENCO TELEPHONE REPRESENTATIVES

- Consultant shall have 24/7 hour telephone representatives available to answer inquiries related to Electric Services.
  - Basic Customer inquiries may be handled by interactive voice response.
- Consultant shall handle all customer calls for electric systems outages on a 24/7 hour basis.
- Consultant will dispatch service requests requiring field technician response to the City's personnel or City's contract routine and or emergency response subcontractor. All such dispatched service orders shall be monitored and tracked by Consultant to ensure field work is completed in a timely manner. Dispatch of routine service orders shall include the turning on or turning off of electric service for customer move ins and move outs, requests for meter read verifications, requests for meter tests, requests for repair of street lights and traffic signals. Dispatch of emergency orders shall include response to customers reporting power outages, low and or high voltage complaints, fluctuating voltage, reports of car hit pole or structure, and reports of electric lines down. Consultant shall monitor and follow up on requests for field support to ensure that field work is performed in a timely manner.
- Consultant shall be responsible for training its personnel to answer Customer inquiries and dispatch appropriate City personnel or City contracted provider for service and emergency orders.
- Consultant shall provide multi-lingual services using Consultant's staff and support services for delivery of professional on-demand phone interpreting. These services are at no additional charge to the City.

5.3 RESPONSES TO CUSTOMER INQUIRIES

- Consultant shall develop policies and procedures for Consultant's telephone representatives in response to Customer inquiries, including:
  - City approved policies and procedures, for processing requests for turn-ons, turn-offs
  - Transfers of electric services
  - Generating service orders
  - Scheduling service calls; and
  - Communicating such orders and schedules to IPUC designated personnel.
- Consultant shall attempt to resolve customer inquiries in accordance with IPUC electric rate structure, policies and procedures.

5.4 RECORDS

- Consultant shall maintain, and submit to the City on a monthly basis, records of inquiries and complaints of customers or potential customers, including:
  - Resolution of such inquiries, in accordance with the City's records retention schedule
- Consultant shall update customer account records to reflect customer inquiries on a regular basis.

5.5 COMMUNICATIONS

- As set forth in Section 1.4, monthly, Consultant shall provide the City with a list of customer inquiries and the resolution of those inquiries. In the event that Consultant receives a customer inquiry outside of the Scope of Services, or an inquiry that is not routine in nature, Consultant shall immediately provide the inquiry to the City.

SECTION 6. FEES AND SURCHARGES BILLED TO CUSTOMERS

6.1 REPORTS TO THE CITY.

- Consultant shall provide monthly reports to the City in support of any charges billed to customers for electric services.
- Consultant shall notify the City if any taxing or other authority advises Consultant that it intends to audit records in Consultant's possession, custody, or control with respect to this Agreement.

EXHIBIT B

RATE SCHEDULE

Consultant shall receive a monthly fee of two thousand five hundred dollars ($2,500.00) for account services to include billing, bill printing, bill stock, postage, and 24/7 multilingual call center, dispatch, remittance processing and reporting.

The City expects development which will increase the number of customer billable accounts. The Consultant will increase the Monthly fee by $20.00 per billable premise in excess of 150 billable premises.

EXHIBIT C

INSURANCE REQUIREMENTS

Without limiting Consultant's indemnification of City, and prior to commencement of the Services, Consultant shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to Agency.

General liability insurance. Consultant shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $1,000,000.00 per occurrence, $2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Consultant shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Consultant arising out of or in connection with Work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000.00 combined single limit for each accident.

Professional liability (errors & omissions) insurance. Consultant shall maintain professional liability insurance that covers the Services to be performed in connection with this Agreement, in the minimum amount of $1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this agreement and Consultant agrees to maintain continuous coverage through a period no less than three years after completion of the services required by this agreement.

Workers' compensation insurance. Consultant shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000.00).

Consultant shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of Agency, its officers, agents, employees and volunteers.

Proof of insurance. Consultant shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this contract. City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the Services hereunder by Consultant, his agents, representatives, employees or subconsultants.

Primary/noncontributing. Coverage provided by Consultant shall be primary and any insurance or self-insurance procured or maintained by City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Consultant, or City will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Consultant acknowledges and agrees that any actual or alleged failure on the part of the City to inform Consultant of non-compliance with any requirement imposes no additional obligations on the Agency nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Consultant agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Consultant agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by Consultant, provide the same minimum insurance coverage and endorsements required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Consultant agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise specifications. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Consultant ninety (90) days advance written notice of such change. If such change results in substantial additional cost to the Consultant, the City and Consultant may renegotiate Consultant's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Consultant shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from Consultant's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Consultant shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

CITY COUNCIL

ITEM NO. 6.10

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Alex Gonzalez, Director of Development Services and Administration
Troy Helling, Senior Planner
Kristen Weger, Administrative Analyst

Date: December 8, 2016

SUBJECT: Consideration of a Professional Services Agreement with Annealta Group to provide Staff Augmentation Planning Services in an amount not to exceed $834,600.00 from December 8, 2016 to December 8, 2019

On September 8, 2016, the City of Industry ("City") released a Request for Qualifications ("RFQ") for Planning Services Bench. The RFQ was posted in the City's PlanetBids™ vendor portal and an email notification was sent out to all registered vendors. The appropriate trade journals were notified and included Bid America, Southern California Builders Association, Construction Bidboard and Dodge Data & Analytics on September 7, 2016. The RFQ was advertised on Thursday, September 8, 2016 and Thursday, September 15, 2016 in the San Gabriel Valley Tribune.

Statement of Qualifications ("SOQ") were received up until October 13, 2016 at 1:00 pm. Prior to the deadline, forty-nine (49) prospective bidders viewed the RFQ. The City received thirteen (13) proposals from Alta Planning + Design, Annealta Group, CASC Engineering and Consulting, Cordoba Corporation, CSG Consultants, Inc., DKS Associates, Dudek, JMDiaz, Inc., KOA Corporation, Michael Baker International, Placeworks, RK Engineering Group, Inc., and Sage Environmental Group.

The SOQ's were reviewed by a panel which consisted of Alex Gonzalez, Director of Development Services & Administration, City of Industry, Troy Helling, Senior Planner, City of Industry and John Di Mario, Development Services Director, City of La Puente. The selection panel evaluated the qualifications received by each contractor based on the following criteria:

Criteria Categories	Criteria	Possible Points	Points Awarded
Project Understanding	Statement of Qualifications consistent with RFQ. Scope and work plan consistent with subject areas of expertise selected. Identification of key project factors.	10	
Project Management	Does the account manager and team members assigned to the project have prior experience on similar successful projects including, but not limited to, other public agencies?	10	
Qualifications of Firm/Team	Did the Contractor describe the technical qualifications and experience of proposed staff members?	10	
Responsiveness	Can the Contractor perform or provide the required professional services promptly without delay or interference?	10	
Total Points			

The top three ranked firms overall who submitted for staff augmentation services were invited to interview with the City, which took place on Monday, November 7, 2016 and Tuesday, November 8, 2016. Those firms were Annealta Group, CSG Consultants, Inc., and Michael Baker International. The interview panel members included Alex Gonzalez, Director of Development Services & Administration, City of Industry, Troy Helling, Senior Planner, City of Industry, and Josh Nelson, Deputy City Engineer, CNC Engineering.

The following tables summarizes the results and rankings of the staff augmentation interviews.

Table 1 – Staff Augmentation Services

Consultant	Ranking
Annealta Group	1
CSG Consultants, Inc.	3
Michael Baker International	2

Based on the results of the interview process and rankings, City staff recommends that Annealta Group be awarded a Professional Services Agreement to perform staff augmentation services. Annealta Group would be providing the same level of service as the prior contractor, which would include in-house contracted staff augmentation, planning services by providing one (1) full-time Assistant Planner approximately forty hours per week and one (1) part-time Senior Planner approximately fifteen hours per week.

Fiscal Impact

An appropriation of $162,283.33 to the General Fund – Planning – Professional Services (account no. 100-521-5120-01) is necessary to cover seven (7) months of planning service costs in the remaining 2016-2017 fiscal year. The City will work to recover the costs of this contract through cost recovery agreements with developers.

Recommendation

1.) Based on the rankings, staff recommends that Annealta Group be awarded a Professional Services Agreement to provide staff augmentation planning services in an amount not to exceed $834,600.00 from December 8, 2016 to December 8, 2019; and
2.) Approve an appropriation of $162,283.33 to the General Fund – Planning – Professional Services (account no. 100-521-5120-01) to cover seven (7) months of planning service costs in the remaining 2016-2017 fiscal year.

Exhibits

A. Professional Services Agreement with Annealta Group in an amount not to exceed $834,600.00 from December 8, 2016 to December 8, 2019
B. Planning Services Bench Summary of Statement of Qualifications and Interview Scores and Rankings
C. Request for Qualifications ("RFQ") for Planning Services Bench and Addendum Nos. 1-2

PJP:AG:TH:KW:mk

EXHIBIT A

Professional Services Agreement with Annealta Group in an amount not to exceed $834,600.00 from December 8, 2016 to December 8, 2019

[Attached]

CITY OF INDUSTRY

PROFESSIONAL SERVICES AGREEMENT

This PROFESSIONAL SERVICES AGREEMENT ("Agreement"), is made and effective as of December 8, 2016 ("Effective Date"), between the City of Industry, a municipal corporation ("City") and Annealta Group, a California corporation ("Consultant"). The City and Consultant are hereinafter collectively referred to as the "Parties".

RECITALS

WHEREAS, City desires to engage Consultant to perform the services described herein, and Consultant desires to perform such services in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions herein contained, City and Consultant agree as follows:

1. TERM

This Agreement shall commence on the Effective Date, and shall remain and continue in effect until tasks described herein are completed, but in no event later than December 8, 2019, unless sooner terminated pursuant to the provisions of this Agreement.

2. SERVICES

(a) Consultant shall perform the tasks ("Services") described and set forth in Exhibit A, attached hereto and incorporated herein as though set forth in full. ("Scope of Services"). Tasks other than those specifically described in the Scope of Services shall not be performed without prior written approval of the City. The Services shall be performed by Consultant, unless prior written approval is first obtained from the City. In the event of conflict or inconsistency between the terms of this Agreement and Exhibit A, the terms of this Agreement shall prevail.

(b) City shall have the right to request, in writing, changes to the Services. Any such changes mutually agreed upon by the Parties, and any corresponding increase or decrease in compensation, shall be incorporated by written amendment to this Agreement.

(c) Consultant shall perform all Services in a manner reasonably satisfactory to the City and in a first-class manner in conformance with the standards of quality normally observed by an entity providing planning services, serving a municipal agency.

(d) Consultant shall comply with all applicable federal, state, and local laws, regulations and ordinances in the performance of this Agreement, including but not limited to, the conflict of interest provisions of Government Code Section 1090 and the Political Reform Act (Government Code Section 81000 *et seq.*)). During the term of this Agreement, Consultant shall not perform any work for another person or entity for whom

Consultant was not working on the Effective Date if both (i) such work would require Consultant to abstain from a decision under this Agreement pursuant to a conflict of interest statute or law; and (ii) City has not consented in writing to Consultant's performance of such work. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq*. Consultant hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Consultant was an employee, agent, appointee, or official of the City in the previous twelve (12) months, Consultant warrants that it did not participate in any manner in the forming of this Agreement. Consultant understands that, if this Agreement is made in violation of Government Code §1090 *et. seq.*, the entire Agreement is void and Consultant will not be entitled to any compensation for Services performed pursuant to this Agreement, and Consultant will be required to reimburse the City for any sums paid to the Consultant. Consultant understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

(e) Consultant represents that it has, or will secure at its own expense, all licensed personnel required to perform the Services. All Services shall be performed by Consultant or under its supervision, and all personnel engaged in the Services shall be qualified and licensed to perform such services.

3. MANAGEMENT

City's City Manager shall represent the City in all matters pertaining to the administration of this Agreement, review and approval of all products submitted by Consultant, but shall have no authority to modify the Services or the compensation due to Consultant.

4. PAYMENT

(a) The City agrees to pay Consultant monthly, in accordance with the payment rates and terms and the schedule of payment as set forth in Exhibit B ("Rate Schedule"), attached hereto and incorporated herein by this reference as though set forth in full, based upon actual time spent on the above tasks. This amount shall not exceed Eight Hundred Thirty Four Thousand Six Hundred Dollars ($834,600.00) for the total Term of the Agreement unless additional payment is approved as provided in this Agreement.

(b) Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement which are in addition to those set forth herein, unless such additional services are authorized in advance and in writing by the City. Consultant shall be compensated for any additional services in the amounts and in the manner as agreed to by City and Consultant at the time City's written authorization is given to Consultant for the performance of said services.

(c) Consultant shall submit invoices monthly for actual services performed. Invoices shall be submitted on or about the first business day of each month, or as soon thereafter as

practical, for services provided in the previous month. Payment shall be made within thirty (30) days of receipt of each invoice as to all non-disputed fees. If the City disputes any of Consultant's fees it shall give written notice to Consultant within thirty (30) days of receipt of an invoice of any disputed fees set forth on the invoice. Any final payment under this Agreement shall be made within 45 days of receipt of an invoice therefore.

5. SUSPENSION OR TERMINATION OF AGREEMENT

(a) The City may at any time, for any reason, with or without cause, suspend or terminate this Agreement, or any portion hereof, by serving upon the Consultant at least ten (10) days prior written notice. Upon receipt of said notice, the Consultant shall immediately cease all work under this Agreement, unless the notice provides otherwise. If the City suspends or terminates a portion of this Agreement such suspension or termination shall not make void or invalidate the remainder of this Agreement.

(b) In the event this Agreement is terminated pursuant to this Section, the City shall pay to Consultant the actual value of the work performed up to the time of termination, provided that the work performed is of value to the City. Upon termination of the Agreement pursuant to this Section, the Consultant shall submit an invoice to the City pursuant to Section 5 of this Agreement.

6. OWNERSHIP OF DOCUMENTS

(a) Consultant shall maintain complete and accurate records with respect to sales, costs, expenses, receipts, and other such information required by City that relate to the performance of services under this Agreement. Consultant shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Consultant shall provide free access to the representatives of City or its designees at reasonable times to review such books and records; shall give City the right to examine and audit said books and records; shall permit City to make transcripts or copies therefrom as necessary; and shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement. Such records, together with supporting documents, shall be maintained for a period of three (3) years after receipt of final payment.

(b) Upon completion of, or in the event of termination or suspension of this Agreement, all original documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared in the course of providing the services to be performed pursuant to this Agreement shall become the sole property of the City and may be used, reused, or otherwise disposed of by the City without the permission of the Consultant. With respect to computer files, Consultant shall make available to the City, at the Consultant's office, and upon reasonable written request by the City, the necessary computer software and hardware for purposes of accessing, compiling, transferring, copying and/or printing computer files. Consultant hereby grants to City all right, title, and interest, including any copyright, in and to the documents, designs, drawings, maps, models,

computer files, surveys, notes, and other documents prepared by Consultant in the course of providing the services under this Agreement. All reports, documents, or other written material developed by Consultant in the performance of the Services pursuant to this Agreement, shall be and remain the property of the City.

7. INDEMNIFICATION

(a) Indemnity for professional liability

When the law establishes a professional standard of care for Consultant's Services, to the fullest extent permitted by law, Consultant shall indemnify, protect, defend and hold harmless the City and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses, including legal counsel's fees and costs caused in whole or in part by any negligent or wrongful act, error or omission of Consultant, its officers, agents, employees or Subconsultants (or any agency or individual that Consultant shall bear the legal liability thereof) in the performance of professional services under this Agreement.

(b) Indemnity for other than professional liability

Other than in the performance of professional services and to the full extent permitted by law, Consultant shall indemnify, defend and hold harmless City, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this Agreement by Consultant or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant.

(c) DUTY TO DEFEND. In the event the City, its officers, employees, agents and/or volunteers are made a party to any action, claim, lawsuit, or other adversarial proceeding arising from the performance of the services encompassed by this Agreement, and upon demand by City, Consultant shall have an immediate duty to defend the City at Consultant's cost or at City's option, to reimburse the City for its costs of defense, including reasonable attorney's fees and costs incurred in the defense of such matters.

Payment by City is not a condition precedent to enforcement of this indemnity. In the event of any dispute between Consultant and City, as to whether liability arises from the sole negligence of the City or its officers, employees, or agents, Consultant will be obligated to pay for City's defense until such time as a final judgment has been entered adjudicating the City as solely negligent. Consultant will not be entitled in the absence of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

8. INSURANCE

Consultant shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit C attached hereto and incorporated herein by reference.

9. INDEPENDENT CONSULTANT

(a) Consultant is and shall at all times remain as to the City a wholly independent consultant and/or independent contractor. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultants exclusive direction and control. Neither City nor any of its officers, employees, or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that it or any of its officers, employees, or agents are in any manner officers, employees, or agents of the City. Consultant shall not incur or have the power to incur any debt, obligation, or liability whatever against the City, or bind the City in any manner.

(b) No employee benefits shall be available to Consultant in connection with the performance of this Agreement. Except for the fees paid to Consultant as provided in the Agreement, City shall not pay salaries, wages, or other compensation to Consultant for performing services hereunder for City. City shall not be liable for compensation or indemnification to Consultant for injury or sickness arising out of performing services hereunder.

10. LEGAL RESPONSIBILITIES

The Consultant shall keep itself informed of State and Federal laws and regulations which in any manner affect those employed by it or in any way affect the performance of its service pursuant to this Agreement. The Consultant shall at all times observe and comply with all such laws and regulations. The City, and its officers and employees, shall not be liable at law or in equity occasioned by failure of the Consultant to comply with this Section.

11. UNDUE INFLUENCE

Consultant declares and warrants that no undue influence or pressure was used against or in concert with any officer or employee of the City in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential financial arrangement, or financial inducement. No officer or employee of the City has or will receive compensation, directly or indirectly, from Consultant, or from any officer, employee or agent of Consultant, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section shall be a material breach of this Agreement entitling the City to any and all remedies at law or in equity.

12. NO BENEFIT TO ARISE TO LOCAL OFFICERS AND EMPLOYEES

No member, officer, or employee of City, or their designees or agents, and no public official who exercises authority over or responsibilities with respect to the Project during

his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement, or the proceeds thereof, for work to be performed in connection with the Project performed under this Agreement.

13. RELEASE OF INFORMATION/CONFLICTS OF INTEREST

(a) All information gained by Consultant in performance of this Agreement shall be considered confidential and shall not be released by Consultant without City's prior written authorization. Consultant, its officers, employees, agents, or subconsultants, shall not without written authorization from the City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the work performed under this Agreement or relating to any project or property located within the City, unless otherwise required by law or court order. (b) Consultant shall promptly notify City should Consultant, its officers, employees, agents, or subconsultants be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions, or other discovery request ("Discovery"), court order, or subpoena from any person or party regarding this Agreement and the work performed there under or with respect to any project or property located within the City, unless Consultant is prohibited by law from informing the City of such Discovery, court order or subpoena. City retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding as allowed by law. Unless City is a party to the lawsuit, arbitration, or administrative proceeding and is adverse to Consultant in such proceeding, Consultant agrees to cooperate fully with the City and to provide the opportunity to review any response to discovery requests provided by Consultant. However, City's right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

14. NOTICES

Any notices which either party may desire to give to the other party under this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, which provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, addressed to the address of the party as set forth below or at any other address as that party may later designate by notice:

To City:	City of Industry 15625 E. Stafford, Suite 100 City of Industry, CA 91744 Attention: City Manager
With a Copy To:	James M. Casso, City Attorney Casso & Sparks, LLP 13200 Crossroads Parkway North, Suite 345 City of Industry, CA 91746

To Consultant: Paul Timothy D'Zmura, President /CEO
Annealta Group
6471 Glenfox Drive
Huntington Beach, CA 92647

15. ASSIGNMENT

The Consultant shall not assign the performance of this Agreement, nor any part thereof, nor any monies due hereunder, without prior written consent of the City.

Before retaining or contracting with any subconsultant for any services under this Agreement, Consultant shall provide City with the identity of the proposed subconsultant, a copy of the proposed written contract between Consultant and such subconsultant which shall include and indemnity provision similar to the one provided herein and identifying City as an indemnified party, or an incorporation of the indemnity provision provided herein, and proof that such proposed subconsultant carries insurance at least equal to that required by this Agreement or obtain a written waiver from the City for such insurance.

Notwithstanding Consultant's use of any subconsultant, Consultant shall be responsible to the City for the performance of its subconstultant as it would be if Consultant had performed the Services itself. Nothing in this Agreement shall be deemed or construed to create a contractual relationship between the City and any subconsultant employed by Consultant. Consultant shall be solely responsible for payments to any subconsultants. Consultant shall indemnify, defend and hold harmless the Indemnified Parties for any claims arising from, or related to, the services performed by a subconsultant under this Agreement.

16. GOVERNING LAW/ATTORNEYS' FEES

The City and Consultant understand and agree that the laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement and also govern the interpretation of this Agreement. Any litigation concerning this Agreement shall take place in the municipal, superior, or federal district court in Los Angeles County, California. If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of or relating to the Services provided by Consultant under this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and all related costs, including costs of expert witnesses and consultants, as well as costs on appeal, in addition to any other relief to which it may be entitled.

17. ENTIRE AGREEMENT

This Agreement contains the entire understanding between the Parties relating to the obligations of the Parties described in this Agreement. All prior or contemporaneous agreements, understandings, representations, and statements, oral or written and pertaining to the subject of this Agreement or with respect to the terms and conditions of this Agreement, are merged into this Agreement and shall be of no further force or effect. Each party is entering into this Agreement based solely upon the representations set forth herein

and upon each party's own independent investigation of any and all facts such party deems material.

18. SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

19. COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

20. CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

21. WAIVER

The waiver by City or Consultant of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Consultant unless in writing.

22. REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

23. AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Consultant represents and warrants that he/she has the authority to execute this Agreement on behalf of the

Consultant and has the authority to bind Consultant to the performance of its obligations hereunder.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the Effective Date.

"CITY"
City of Industry

By:_____
Paul J. Philips, City Manager

"CONSULTANT"
Annealta Group

By_____
Paul Timothy D'Zmura, President/CEO

Attest:

By:_____
Diane M. Schlichting, Chief Deputy City Clerk

Approved as to form:

By:_____
James M. Casso, City Attorney

Attachments:	Exhibit A	Scope of Services
	Exhibit B	Rate Schedule
	Exhibit C	Insurance Requirements

EXHIBIT A

SCOPE OF SERVICES

Consultant shall provide planning staff augmentation services to include, but not limited to:

A. Processing administrative and discretionary land use entitlement applications;

B. Supporting the Planning Commission;

C. Overseeing the preparation of Planning Commission agendas;

D. Preparing and presenting Planning Commission and City Council staff reports;

E. Providing support for the City's various legislative bodies;

F. Preparing public notices, as required;

G. Providing assistance at the Planning Department's public counter, as needed;

H. Directing and training administrative support staff in performing various municipal planning functions;

I. Preparing California Environmental Quality Act ("CEQA") documentation for projects, as applicable;

J. Coordinating any advance planning work being performed by other planning consultants;

K. Representing the City at meetings of regional planning agencies, such as Southern California Association of Governments ("SCAG") and the San Gabriel Valley Council of Governments, as necessary;

L. Preparing ordinances and otherwise maintaining and updating the Municipal Code, as necessary; and

M. Performing other related duties, as assigned by City staff.

EXHIBIT B

RATE SCHEDULE

Classification	Hourly Rate
Project/Planning Manager	$140
Senior Planner	130
Associate Planner II	115
Associate Planner I	105
Assistant Planner III	95
Assistant Planner II	90
Assistant Planner I	85
Planning Technician II	80
Planning Technician I	75

City shall reimburse Consultant its actual costs for all photocopying and postage, upon submittal of evidence of said costs along with the monthly invoice, as set forth in the Agreement.

EXHIBIT C

INSURANCE REQUIREMENTS

Without limiting Consultant's indemnification of City, and prior to commencement of the Services, Consultant shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to Agency.

General liability insurance. Consultant shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $1,000,000.00 per occurrence, $2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Consultant shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Consultant arising out of or in connection with Work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000.00 combined single limit for each accident.

Professional liability (errors & omissions) insurance. Consultant shall maintain professional liability insurance that covers the Services to be performed in connection with this Agreement, in the minimum amount of $1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this agreement and Consultant agrees to maintain continuous coverage through a period no less than three years after completion of the services required by this agreement.

Workers' compensation insurance. Consultant shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000.00).

Consultant shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of Agency, its officers, agents, employees and volunteers.

Proof of insurance. Consultant shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this contract. City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may

arise from or in connection with the performance of the Services hereunder by Consultant, his agents, representatives, employees or subconsultants.

Primary/noncontributing. Coverage provided by Consultant shall be primary and any insurance or self-insurance procured or maintained by City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Consultant, or City will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Consultant acknowledges and agrees that any actual or alleged failure on the part of the City to inform Consultant of non-compliance with any requirement imposes no additional obligations on the Agency nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Consultant agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Consultant agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by Consultant, provide the same minimum insurance coverage and endorsements required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Consultant agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise specifications. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Consultant ninety (90) days advance written notice of such change. If such change results in substantial additional cost to the Consultant, the City and Consultant may renegotiate Consultant's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Consultant shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from Consultant's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Consultant shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

EXHIBIT B

Planning Services Bench Summary of Statement of Qualifications and Interview Scores and Rankings

[Attached]

Contract No. 2016-1004
Request for Qualifications ("RFQ") for Planning Services Bench
Summary of Statement of Qualifications
October 27, 2016

Criteria	Alta Planning + Design	Annealta Group	CASC Engineering and Consulting	Cordoba Corporation	CSG Consultants, Inc.	DKS Associates	Dudek	JMDiaz, Inc.	KOA Corporation	Michael Baker International	Placeworks	RK Engineering Group, Inc.	Sage Environmental Group
Alex Gonzalez, Director of Development Services and Administration, City of Industry	37	38	38	34	40	35	37	29	37	36	38	32	31
John Di Mario, Development Services Director, City of La Puente	30	29	30	31	29	29	31	28	32	32	31	31	30
Troy Helling, Senior Planner, City of Industry	37	33	38	34	31	33	37	32	38	36	37	36	32
Total Score	104	100	106	99	100	97	105	89	107	104	106	99	93
Average Score	**34.666667**	**33.33333333**	**35.33333333**	**33**	**33.33333333**	**32.33333333**	**35**	**29.667**	**35.6666667**	**34.6666667**	**35.333333**	**33**	**31**
Ranking	**4**	**5**	**2**	**6**	**5**	**7**	**3**	**9**	**1**	**4**	**2**	**6**	**8**

Contract No. 2016-1004
Request for Qualifications ("RFQ") for Planning Services Bench
Summary of Planning Interviews
November 8, 2016

Criteria	Annealta Group	CSG Consultants, Inc.	Michael Baker International
Alex Gonzalez, Director of Development Services and Administration, City of Industry	39	31	34
Josh Nelson, Deputy City Engineer, CNC Engineering	39	34	38
Troy Helling, Senior Planner, City of Industry	38	35	36
Total Score	116	100	108
Average Score	**38.666667**	**33.33333333**	**36**
Ranking	**1**	**3**	**2**

EXHIBIT C

Request for Qualifications ("RFQ") for Planning Services Bench and Addendum Nos. 1-2

[Attached]

CITY OF INDUSTRY

NOTICE INVITING REQUEST FOR QUALIFICATIONS

(RFQ) FOR PLANNING SERVICES BENCH

Contract No. 2016-1004

SUBMIT PROPOSALS TO
City of Industry via
PlanetBids™ Vendor Portal:

http://www.cityofindustry.org/?p=proposal-and-bid

SCHEDULE AND PROCESS:

RFQ Announcement and Issuance	Thursday, September 8, 2016
Question Submittal Deadline	Thursday, September 29, 2016 at 1:00 pm
Proposal Submittal Deadline	Thursday, October 13, 2016 at 1:00 pm
Contractor Interview (if desired by City)	October 24-31, 2016
City Council Consideration (tentative)	Thursday, November 10, 2016

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SECTION 1
INTRODUCTION AND GENERAL INFORMATION

Overview of the Request for Proposals

The City of Industry (City) is requesting Qualifications to procure qualified contractors to provide technical, professional, and staff support services to the City's Development Services Department and to develop a bench of qualified consultant firms that may be used as necessary.

Qualified contractors that are accepted on the Planning Services Bench will execute agreements with the City that detail the areas of expertise for the firm and the hourly rates for services through the term of the contract. The City will use the pre-qualified Planning Services Bench as projects arise by distributing proposal requests to a minimum of three firms on the pre-qualified bench to meet the procurement policies of the City of Industry.

The City reserves the right to release competitive procurements to firms outside of the pre-qualified Engineering Services Bench if the City determines that it is in its best interests, based on the project's funding source or any other factors at the discretion of the City.

RFQ Guidelines

All contacts pertaining to this Request for Qualifications shall be directed via the City of Industry's PlanetBids™ vendor portal to:

Kristen Weger, Administrative Analyst
City of Industry
P.O. Box 3366
City of Industry, CA 91744-0366
(626) 333-2211

The City assumes no responsibility for any costs incurred by an individual/Contractor in the preparation and/or presentation of a proposal in response to this Request. To be considered, respondents must submit a complete response in accordance with the requirements contained in **Section 4** of this Request. Submittals must be signed by the individual or an officer of the Contractor authorized to bind the Contractor to its provisions.

All submittals and supporting materials become the property of the City of Industry upon its receipt by the City. The City reserves the right to reject any and all submittals received, or to request additional information from any or all of the respondents for the purpose of ascertaining the most qualified individual(s)/Contractor(s) for the services requested.

Response Date

To be considered, a statement of qualifications must be received by the City of Industry no later than 1:00 p.m., on Thursday, October 13, 2016 via the City of Industry's PlanetBids™ vendor portal. Proposals are to be submitted through http://www.cityofindustry.org/?p=proposal-and-bid.

Proposal cover page must clearly state: **PLANNING SERVICES BENCH**

Postmarks, mailed, emailed or hard copy proposals will not be accepted. Late proposals will not be accepted.

Selection of Contractor

The City shall select MULTIPLE Individual(s)/Contractor(s) based on a combination of factors, such as: responsiveness and comprehensiveness of the Proposer with respect to this Request for Qualifications (RFQ); technical background and experience of the firm; technical background and experience of the proposed team members; previous work performed for other public agencies; and information obtained from references. Proposers will self-identify the planning services categories in which they consider themselves qualified, and proposers are encouraged to detail in their submittal the full range of expertise that the firm can provide. Cost will not be a deciding factor in selection, proposers will submit sealed price proposals that detail hourly rates for proposed staff. Markups for travel, subcontractor markups, or markups for other expenses that cannot be clearly documented and supported will not be accepted. Modifications to the City's Professional Services Agreement will not be accepted. This RFQ, to determine a prequalified bench for multiple planning services, will be used to procure future project and program work that is not required to be procured under Federal guidelines. The City of Industry Municipal Code requires a minimum of three (3) proposals to award work, therefore, it is expected that a minimum of three (3) firms will be pre-qualified in each category in order to comply with the City's Municipal Code.

In addition, the following factors will be considered:

1. Completeness of the proposal and ability of the Proposer to comply with the mandatory requirements proposed under this RFQ;
2. Whether the Contractor has the financial resources and facilities to perform or provide the required services promptly, or within the time specified without delay or interference;
3. Experience implementing similar projects/programs;
4. Recommendations from prior clients and record of performance on previous contracts or services;
5. Ability to communicate effectively with a diverse population, particularly English, Spanish, Korean and Cantonese/Mandarin language speakers; and
6. Ability to respond or operate 24 hours a day, seven days a week in the event of an emergency.

Some or all of the respondents may be requested to make an oral presentation of their qualifications.

SECTION 2
SCOPE OF SERVICES

General Description

The City of Industry is seeking qualified contractors to provide a wide range of professional planning services to the City under the guidance of City staff and the City's in-house contracted planning firm(s). The City's in-house contracted planning firm(s) are not precluded from submitting bids on projects that require procurement. If the contracted in-house planning firm expresses a desire to submit a bid on a project that requires procurement, their staff will be precluded from participating in the procurement process. However, if the City's in-house contracted planning firm(s) is awarded a contract after a competitive procurement process, another planning firm from the pre-qualified bench will be chosen to provide project oversight, management and any other services deemed necessary to ensure peer review. It is the intent of the City to develop a comprehensive bench of pre-qualified contractors that can work in synergy to deliver projects, while introducing transparency in the procurement process. It is also critical for the City that multiple checks and balances are in place to ensure that the City's funds are used efficiently and that projects are built on-time and under budget. Services to be provided under this Request for Qualifications include, but are not necessarily limited to, the following:

1. **Staff Augmentation** for general planning-related development review and project management services, such as: creating presentations for the City Council and Planning Commission, writing staff reports and conditions of approval with associated resolutions, coordinate with City Code Enforcement staff on planning-related issues, be present at City Hall and hold regular office hours and counter hours as agreed upon by staff and Consultant.
2. **Development Review** to analyze and process development applications to include, but not limited to: Specific Plans, Site Development Permits, Tract Maps, Zone Changes, Overlays and Conditional Use Permits.
3. **Environmental Review** and preparation of environmental review documents to include, but not limited to: Environmental Impact Reports, Mitigated Negative Declarations, and Initial Studies pursuant to California Environmental Quality Act guidelines (CEQA) and National Environmental Policy Act (NEPA) regulations.
4. **Transportation Planning**, including Bicycle, Pedestrian and Human Factors.
5. **Environmental Planning Services**, including staff support and reporting for open space and habitat areas.

The City of Industry is particularly interested in firms with documented experience in developing sustainability projects that address the following areas: alternative energy generation, stormwater capture and treatment, preservation/recreational use of habitat and open space, and innovative programs/systems that address the negative externalities of industrial processes.

SECTION 3
CONTRACTOR QUALIFICATIONS AND REQUIREMENTS

General Qualifications and Requirements

In order to be considered, Proposers must meet the requirements outlined in this section. Proposers that do not meet the requirements will be considered non-responsive and their submittal will be rejected.

1. **Experience.** The selected individual(s)/Contractor(s) will have extensive experience that shows the Contractor(s) can provide professional, first-class service.

2. **Principal.** The account manager, or contact person, assigned to the City will be a consideration in the selection. Qualifications and prior experience in similar programs and activities must be demonstrated in the proposal. Once selected, the account manager, or contact person, assigned to the project or contract shall not be changed without prior written consent of the City. An organizational chart, if applicable, shall be submitted with the proposal.

3. **Appropriate Licenses or certifications.** Contractor is required to have in full force and affect all licenses and permits required by all applicable laws.

4. **Insurance.** The following are the legal and insurance requirements of the City of Industry for the selected Contractor. They are non-negotiable. The detailed insurance requirements are included in Exhibit A:

   a) Time for Compliance. Contractor shall not commence work under this Agreement until it has provided evidence satisfactory to the City that it has secured all insurance required under this section. In addition, Contractor shall not allow any subcontractor to commence work on any subcontract until it has provided evidence satisfactory to the City that the subcontractor has secured all insurance required under this section.

   b) Minimum Requirements. Contractor shall, at its expense, procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Agreement by the Contractor, its agents, representatives, employees or subcontractors. Contractor shall also require all of its subcontractors to procure and maintain the same insurance for the duration of the Agreement. Such insurance shall meet at least the following minimum levels of coverage:

      1. Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) *General Liability*: Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001); (2) *Automobile Liability*: Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto); and (3) *Workers' Compensation and Employer's Liability*: Workers' Compensation insurance as required by the State

of California and Employer's Liability Insurance.

2. Minimum Limits of Insurance. Contractor shall maintain limits no less than: (1) *General Liability:* $1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with general aggregate limit is used, either the general aggregate limit shall apply separately to this Agreement/location or the general aggregate limit shall be twice the required occurrence limit; (2) *Automobile Liability:* $1,000,000 per accident for bodily injury and property damage; and (3) *Workers' Compensation and Employer's Liability:* Workers' Compensation limits as required by the Labor Code of the State of California. Employer's Liability limits of $1,000,000 per accident for bodily injury or disease.

SECTION 4
PROPOSAL SUBMITTAL REQUIREMENTS

Submittal Format and Content

1. The submittal should be typed and as brief as possible while adequately describing the qualifications of the Contractor.

2. Only one proposal per Contractor will be considered, and the Contractor must clearly state all of the subject areas of expertise: **Staff Augmentation, Development Review, Environmental Review, Transportation Planning or Environmental Planning Services**.

3. The proposing Contractor shall submit the following information with the package, including the same information on subcontractors, in the following format:

   a. **Cover Letter.** In no more than two (2) pages, the Contractor should provide the name, address and phone number of the Consultant, the primary contact name and phone number, any qualifying statements or comments regarding the proposal and identification of any sub-consultants and their responsibilities. The signed letter should also include a paragraph stating that the Contractor is unaware of any conflict of interest in performing the proposed work.

   b. **Qualifications.** This portion should include a description of the qualifications of the assigned staff and sub-contractors, relevant technical experience, and the availability of the staff for the services provided. After selection of a Contractor(s) by the City, no substitution of key staff or subcontractors may occur without the written approval of the City. A list of related projects should be included with the name of the contract person and the telephone number for which the Contractor has recently or currently provides services as outlined under the Scope of Work.

   c. **Scope of Work.** The Contractor shall describe the proposed work by task, including any tasks to be performed by sub-contractors.

   d. **Project Fees.** Proposing Contractors must submit a sealed hourly fee proposal that includes a schedule of fees for all pertinent employees proposed for the project. Fee schedules for contractors that are not chosen will not be opened. Hourly rates are not a deciding factor in the award. It is expected that the hourly rates submitted will remain fixed for the duration of the contract, which is projected to be a three (3) year term.

   e. **Acceptance of Conditions.** This section will be a statement offering the Contractor's acceptance of all conditions listed in the Request for Qualifications document. Any exceptions or suggested changes to the RFQ or any contractual obligations, including the suggested change, the reasons therefore and the impact it may have on cost or other considerations on the Contractor's behalf must be stated in the submittal. Unless

specifically noted by the Contractor, the City will assume that the submittal is in compliance with all aspects of the RFQ.

Evaluation and Selection Process

Selection will follow these steps:

1. **Submittal Review**: Each submittal will be reviewed to determine if it meets the RFQ requirements. Failure to meet the requirements of the RFQ will be cause for rejection. The City will consider the following in selecting a contractor(s).

   Response to requested Scope of Services and this RFQ;
   Professional reputation;
   Experience of the Contractor;
   Qualifications;
   Number and experience of personnel;
   References provided.

2. **Interview.** Contractors may be interviewed by an oral board.

3. **Professional Services Agreement.** The Director of Development Services and Administration will request a professional services agreement subject to negotiation of precise work program, terms of payment and other City requirements from the Contractor(s) found most qualified. Nothing in this RFQ should imply a contractual obligation for employment.

4. **Contract Approval and Execution.** The agreement will be presented to the City of Industry City Council for approval and execution by the City Manager.

Please submit the proposal **no later than 1:00 p.m., on Thursday, October 13, 2016** via City of Industry PlanetBids™ vendor portal http://www.cityofindustry.org/?p=proposal-and-bid.

Attachment 1

City of Industry
Professional Services Agreement

This PROFESSIONAL SERVICES AGREEMENT ("Agreement"), is made and effective as of INSERT DATE ("Effective Date"), between the City of Industry, a municipal corporation ("City") and INSERT NAME OF CONSULTANT AND TYPE OF LEGAL ENTITY [i.e.-limited liability company, corporation, partnership, etc.]("Consultant"). The City and Consultant are hereinafter collectively referred to as the "Parties".

RECITALS

WHEREAS, City desires to engage Consultant to perform the services described herein, and Consultant desires to perform such services in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions herein contained, City and Consultant agree as follows:

1. TERM

This Agreement shall commence on the Effective Date, and shall remain and continue in effect until tasks described herein are completed, but in no event later than INSERT DATE, unless sooner terminated pursuant to the provisions of this Agreement.

2. SERVICES

(a) Consultant shall perform the tasks ("Services") described and set forth in Exhibit A, attached hereto and incorporated herein as though set forth in full. ("Scope of Services"). Tasks other than those specifically described in the Scope of Services shall not be performed without prior written approval of the City. The Services shall be performed by Consultant, unless prior written approval is first obtained from the City. In the event of conflict or inconsistency between the terms of this Agreement and Exhibit A, the terms of this Agreement shall prevail.

(b) City shall have the right to request, in writing, changes to the Services. Any such changes mutually agreed upon by the Parties, and any corresponding increase or decrease in compensation, shall be incorporated by written amendment to this Agreement.

(c) Consultant shall perform all Services in a manner reasonably satisfactory to the City and in a first-class manner in conformance with the standards of quality normally observed by an entity providing INSERT TYPE OF SERVICES, serving a municipal agency.

(d) Consultant shall comply with all applicable federal, state, and local laws, regulations and ordinances in the performance of this Agreement, including but not limited to, the conflict of interest provisions of Government Code Section 1090 and the Political Reform Act (Government Code Section 81000 *et seq.*)). During the term of this Agreement, Consultant shall not perform any work for another person or entity for whom Consultant was not working on the Effective Date if both (i) such work would require Consultant to abstain from a decision under this Agreement pursuant to a conflict of interest statute or law; and (ii) City has not consented in writing to Consultant's performance of such work. No

officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* Consultant hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Consultant was an employee, agent, appointee, or official of the City in the previous twelve (12) months, Consultant warrants that it did not participate in any manner in the forming of this Agreement. Consultant understands that, if this Agreement is made in violation of Government Code §1090 *et. seq.*, the entire Agreement is void and Consultant will not be entitled to any compensation for Services performed pursuant to this Agreement, and Consultant will be required to reimburse the City for any sums paid to the Consultant. Consultant understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

(e) Consultant represents that it has, or will secure at its own expense, all licensed personnel required to perform the Services. All Services shall be performed by Consultant or under its supervision, and all personnel engaged in the Services shall be qualified and licensed to perform such services.

3. MANAGEMENT

City's INSERT STAFF RESPONSIBLE FOR THE PROJECT shall represent the City in all matters pertaining to the administration of this Agreement, review and approval of all products submitted by Consultant, but shall have no authority to modify the Services or the compensation due to Consultant.

4. PAYMENT

(a) The City agrees to pay Consultant monthly, in accordance with the payment rates and terms and the schedule of payment as set forth in Exhibit B ("Rate Schedule"), attached hereto and incorporated herein by this reference as though set forth in full, based upon actual time spent on the above tasks. This amount shall not exceed INSERT WRITTEN DOLLAR AMOUNT dollars ($) for the total Term of the Agreement unless additional payment is approved as provided in this Agreement.

(b) Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement which are in addition to those set forth herein, unless such additional services are authorized in advance and in writing by the City. Consultant shall be compensated for any additional services in the amounts and in the manner as agreed to by City and Consultant at the time City's written authorization is given to Consultant for the performance of said services.

(c) Consultant shall submit invoices monthly for actual services performed. Invoices shall be submitted on or about the first business day of each month, or as soon thereafter as practical, for services provided in the previous month. Payment shall be made within thirty (30) days of receipt of each invoice as to all non-disputed fees. If the City disputes any of Consultant's fees it shall give written notice to Consultant within thirty (30) days of receipt of an invoice of any disputed fees set forth on the invoice. Any final payment under this Agreement shall be made within 45 days of receipt of an invoice therefore.

5. LABOR CODE AND PREVAILING WAGES

(a) Consultant represents and warrants that it is aware of the requirements of California Labor Code Section 1720, *et seq.*, and 1770, *et seq.*, as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "Public Works" and "Maintenance" projects. If the Services are being performed as part of an applicable "Public Works" or "Maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $15,000.00 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. City shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant's principal place of business and any location where the Services are performed. Consultant shall indemnify, defend and hold harmless, the City, its elected officials, officers, employees and agents, from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, Consultant's or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant, failure or alleged failure to comply with Prevailing Wage Laws.

(b) In accordance with the requirements of Labor Code Section 1776, Consultant shall keep accurate payroll records which are either on forms provided by the Division of Labor Standards Enforcement or which contain the same information required by such forms. Consultant shall make all such records available for inspection at all reasonable hours.

(c) To the extent applicable, Cosultant shall comply with the provisions of Section 1777.5 of the Labor Code with respect to the employment of properly registered apprentices upon public works.

(d) Consultant shall comply with the legal days work and overtime requirements of Sections 1813 and 1815 of the Labor Code.

(e) If the Services are being performed as part of an applicable Public works or Maintenance project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants performing such Services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Agreement and require the same of any subconsultants, as applicable. This Services set forth in this Agreement may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements.

6. SUSPENSION OR TERMINATION OF AGREEMENT

(a) The City may at any time, for any reason, with or without cause, suspend or terminate this Agreement, or any portion hereof, by serving upon the Consultant at least ten (10) days prior written notice. Upon receipt of said notice, the Consultant shall immediately cease all work under this Agreement, unless the notice provides otherwise. If the City suspends or terminates a portion of this Agreement such suspension or termination shall not make void or invalidate the remainder of this Agreement.

(b) In the event this Agreement is terminated pursuant to this Section, the City shall pay to Consultant the actual value of the work performed up to the time of termination, provided that the

work performed is of value to the City. Upon termination of the Agreement pursuant to this Section, the Consultant shall submit an invoice to the City pursuant to Section 5 of this Agreement.

7. OWNERSHIP OF DOCUMENTS

(a) Consultant shall maintain complete and accurate records with respect to sales, costs, expenses, receipts, and other such information required by City that relate to the performance of services under this Agreement. Consultant shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Consultant shall provide free access to the representatives of City or its designees at reasonable times to review such books and records; shall give City the right to examine and audit said books and records; shall permit City to make transcripts or copies therefrom as necessary; and shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement. Such records, together with supporting documents, shall be maintained for a period of three (3) years after receipt of final payment.

(b) Upon completion of, or in the event of termination or suspension of this Agreement, all original documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared in the course of providing the services to be performed pursuant to this Agreement shall become the sole property of the City and may be used, reused, or otherwise disposed of by the City without the permission of the Consultant. With respect to computer files, Consultant shall make available to the City, at the Consultant's office, and upon reasonable written request by the City, the necessary computer software and hardware for purposes of accessing, compiling, transferring, copying and/or printing computer files. Consultant hereby grants to City all right, title, and interest, including any copyright, in and to the documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared by Consultant in the course of providing the services under this Agreement. All reports, documents, or other written material developed by Consultant in the performance of the Services pursuant to this Agreement, shall be and remain the property of the City.

8. INDEMNIFICATION

(a) Indemnity for professional liability

When the law establishes a professional standard of care for Consultant's Services, to the fullest extent permitted by law, Consultant shall indemnify, protect, defend and hold harmless the City and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses, including legal counsel's fees and costs caused in whole or in part by any negligent or wrongful act, error or omission of Consultant, its officers, agents, employees or Subconsultants (or any agency or individual that Consultant shall bear the legal liability thereof) in the performance of professional services under this Agreement.

(b) Indemnity for other than professional liability

Other than in the performance of professional services and to the full extent permitted by law, Consultant shall indemnify, defend and hold harmless City, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this

Agreement by Consultant or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant.

(c) DUTY TO DEFEND. In the event the City, its officers, employees, agents and/or volunteers are made a party to any action, claim, lawsuit, or other adversarial proceeding arising from the performance of the services encompassed by this Agreement, and upon demand by City, Consultant shall have an immediate duty to defend the City at Consultant's cost or at City's option, to reimburse the City for its costs of defense, including reasonable attorney's fees and costs incurred in the defense of such matters.

Payment by City is not a condition precedent to enforcement of this indemnity. In the event of any dispute between Consultant and City, as to whether liability arises from the sole negligence of the City or its officers, employees, or agents, Consultant will be obligated to pay for City's defense until such time as a final judgment has been entered adjudicating the City as solely negligent. Consultant will not be entitled in the absence of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

9. INSURANCE

Consultant shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit C attached hereto and incorporated herein by reference.

10. INDEPENDENT CONSULTANT

(a) Consultant is and shall at all times remain as to the City a wholly independent consultant and/or independent contractor. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultants exclusive direction and control. Neither City nor any of its officers, employees, or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that it or any of its officers, employees, or agents are in any manner officers, employees, or agents of the City. Consultant shall not incur or have the power to incur any debt, obligation, or liability whatever against the City, or bind the City in any manner.

(b) No employee benefits shall be available to Consultant in connection with the performance of this Agreement. Except for the fees paid to Consultant as provided in the Agreement, City shall not pay salaries, wages, or other compensation to Consultant for performing services hereunder for City. City shall not be liable for compensation or indemnification to Consultant for injury or sickness arising out of performing services hereunder.

11. LEGAL RESPONSIBILITIES

The Consultant shall keep itself informed of State and Federal laws and regulations which in any manner affect those employed by it or in any way affect the performance of its service pursuant to this Agreement. The Consultant shall at all times observe and comply with all such laws and regulations. The City, and its officers and employees, shall not be liable at law or in equity occasioned by failure of the Consultant to comply with this Section.

12. UNDUE INFLUENCE

Consultant declares and warrants that no undue influence or pressure was used against or in concert with any officer or employee of the City in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential financial arrangement, or financial inducement. No officer or employee of the City has or will receive compensation, directly or indirectly, from Consultant, or from any officer, employee or agent of Consultant, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section shall be a material breach of this Agreement entitling the City to any and all remedies at law or in equity.

13. NO BENEFIT TO ARISE TO LOCAL OFFICERS AND EMPLOYEES

No member, officer, or employee of City, or their designees or agents, and no public official who exercises authority over or responsibilities with respect to the Project during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement, or the proceeds thereof, for work to be performed in connection with the Project performed under this Agreement.

14. RELEASE OF INFORMATION/CONFLICTS OF INTEREST

(a) All information gained by Consultant in performance of this Agreement shall be considered confidential and shall not be released by Consultant without City's prior written authorization. Consultant, its officers, employees, agents, or subconsultants, shall not without written authorization from the City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the work performed under this Agreement or relating to any project or property located within the City, unless otherwise required by law or court order. (b) Consultant shall promptly notify City should Consultant, its officers, employees, agents, or subconsultants be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions, or other discovery request ("Discovery"), court order, or subpoena from any person or party regarding this Agreement and the work performed there under or with respect to any project or property located within the City, unless Consultant is prohibited by law from informing the City of such Discovery, court order or subpoena. City retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding as allowed by law. Unless City is a party to the lawsuit, arbitration, or administrative proceeding and is adverse to Consultant in such proceeding, Consultant agrees to cooperate fully with the City and to provide the opportunity to review any response to discovery requests provided by Consultant. However, City's right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

15. NOTICES

Any notices which either party may desire to give to the other party under this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, which provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, addressed to the address of the party as set forth below or at any other address as that party may later designate by notice:

To City: City of Industry
15625 E. Stafford, Suite 100
City of Industry, CA 91744

Attention: City Manager

With a Copy To: James M. Casso, City Attorney
Casso & Sparks, LLP
13200 Crossroads Parkway North, Suite 345
City of Industry, CA 91746

To Consultant: _____
_____
_____

16. ASSIGNMENT

The Consultant shall not assign the performance of this Agreement, nor any part thereof, nor any monies due hereunder, without prior written consent of the City.

Before retaining or contracting with any subconsultant for any services under this Agreement, Consultant shall provide City with the identity of the proposed subconsultant, a copy of the proposed written contract between Consultant and such subconsultant which shall include and indemnity provision similar to the one provided herein and identifying City as an indemnified party, or an incorporation of the indemnity provision provided herein, and proof that such proposed subconsultant carries insurance at least equal to that required by this Agreement or obtain a written waiver from the City for such insurance.

Notwithstanding Consultant's use of any subconsultant, Consultant shall be responsible to the City for the performance of its subconstultant as it would be if Consultant had performed the Services itself. Nothing in this Agreement shall be deemed or construed to create a contractual relationship between the City and any subconsultant employed by Consultant. Consultant shall be solely responsible for payments to any subconsultants. Consultant shall indemnify, defend and hold harmless the Indemnified Parties for any claims arising from, or related to, the services performed by a subconsultant under this Agreement.

17. GOVERNING LAW/ATTORNEYS' FEES

The City and Consultant understand and agree that the laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement and also govern the interpretation of this Agreement. Any litigation concerning this Agreement shall take place in the municipal, superior, or federal district court in Los Angeles County, California. If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of or relating to the Services provided by Consultant under this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and all related costs, including costs of expert witnesses and consultants, as well as costs on appeal, in addition to any other relief to which it may be entitled.

18. ENTIRE AGREEMENT

This Agreement contains the entire understanding between the Parties relating to the obligations of the Parties described in this Agreement. All prior or contemporaneous agreements, understandings, representations, and statements, oral or written and pertaining to the subject of this Agreement or with respect to the terms and conditions of this Agreement, are merged into this Agreement and shall be of no further force or effect. Each party is entering into this Agreement

based solely upon the representations set forth herein and upon each party's own independent investigation of any and all facts such party deems material.

19. SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

20. COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

21. CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

22. WAIVER

The waiver by City or Consultant of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Consultant unless in writing.

23. REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

24. AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Consultant represents and warrants that he/she has the authority to execute this Agreement on behalf of the Consultant and has the authority to bind Consultant to the performance of its obligations hereunder.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the Effective Date.

"CITY"

City of Industry

By:_____

Paul Philips, City Manager

"CONSULTANT"

INSERT NAME OF COMPANY

By_____

Name, Title

Attest:

By:_____

Cecelia Dunlap, Deputy City Clerk

Approved as to form:

By:_____

James M. Casso, City Attorney

Attachments:	Exhibit A	Scope of Services
	Exhibit B	Rate Schedule
	Exhibit C	Insurance Requirements

EXHIBIT A

SCOPE OF SERVICES

EXHIBIT B

RATE SCHEDULE

EXHIBIT C

INSURANCE REQUIREMENTS

Without limiting Consultant's indemnification of City, and prior to commencement of the Services, Consultant shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to Agency.

General liability insurance. Consultant shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $1,000,000.00 per occurrence, $2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Consultant shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Consultant arising out of or in connection with Work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000.00 combined single limit for each accident.

Professional liability (errors & omissions) insurance. Consultant shall maintain professional liability insurance that covers the Services to be performed in connection with this Agreement, in the minimum amount of $1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this agreement and Consultant agrees to maintain continuous coverage through a period no less than three years after completion of the services required by this agreement.

Workers' compensation insurance. Consultant shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000.00).

Consultant shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of Agency, its officers, agents, employees and volunteers.

Proof of insurance. Consultant shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this contract. City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the Services hereunder by Consultant, his agents, representatives, employees or subconsultants.

Primary/noncontributing. Coverage provided by Consultant shall be primary and any insurance or self-insurance procured or maintained by City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Consultant, or City will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Consultant acknowledges and agrees that any actual or alleged failure on the part of the City to inform Consultant of non-compliance with any requirement imposes no additional obligations on the Agency nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Consultant agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Consultant agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by

Consultant, provide the same minimum insurance coverage and endorsements required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Consultant agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise specifications. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Consultant ninety (90) days advance written notice of such change. If such change results in substantial additional cost to the Consultant, the City and Consultant may renegotiate Consultant's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Consultant shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from Consultant's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Consultant shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

September 21, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

RFQ Addendum No. 1

CITY OF INDUSTRY

REQUEST FOR QUALIFICATIONS ("RFQ") FOR PLANNING SERVICES BENCH

CONTRACT NO. 2016-1004

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original "Request for Qualifications" (RFQ).

All other terms and conditions remain unchanged.

REQUEST FOR QUALIFICATIONS

SECTION 4, PROPOSAL SUBMITTAL REQUIREMENTS, SUBMITTAL FORMAT AND CONTENT, PAGE 8,

3. The proposing Contractor shall submit the following information with the package, in the following format:

A. COVER LETTER, the first sentence shall read: In no more than two (2) pages, the Contractor should provide the name, address and phone number of the Consultant, the primary contact name and phone number, any qualifying statements or comments regarding the proposal and identification of their responsibilities.

B. QUALIFICATIONS. This portion should include a description of the qualifications of the assigned staff, relevant technical experience, and the availability of the staff for the services provided. After selection of a Contractor(s) by the City, no substitution of key staff may occur without the written approval of the City. A list of related projects should be included with the name of the contract person and

the telephone number for which the Contractor has recently or currently provides services as outlined under the Scope of Work.

C. **SCOPE OF WORK.** The Contractor shall briefly describe the proposed work that would be performed for the planning services category submitting. However, the City would like firms to submit individually based on their experience and in-house qualifications.

D. **PROJECT FEES**, Proposing Contractors must upload and submit a sealed hourly fee proposal that includes a schedule of fees for all pertinent employees proposed for the project via the City of Industry's Planet Bids vendor portal. All sealed hourly fee proposal files shall be uploaded as a separate file from the Statement of Qualifications and shall be clearly marked "Hourly Fee Proposal" in the file name.

END OF ADDENDUM

October 6, 2016

City of Industry
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744

RFQ Addendum No. 2

CITY OF INDUSTRY

REQUEST FOR QUALIFICATIONS ("RFQ") FOR PLANNING SERVICES BENCH

CONTRACT NO. 2016-1004

NOTE: The following attachments are hereby made a part of the project and supersede or amend the corresponding information included in the original "Request for Qualifications" (RFQ).

All other terms and conditions remain unchanged.

REQUEST FOR QUALIFICATIONS

COVER PAGE, SCHEDULE AND PROCESS,

Contractor Interview (if desired by City) October 24 – November 4, 2016.

PAGE 9, EVALUATION AND SELECTION PROCESS, 2. INTERVIEW,

Contractors submitting for consideration to provide Staff Augmentation services may be interviewed by an oral board. All other subject areas of expertise submitted will not interviewed.

END OF ADDENDUM

CITY COUNCIL

ITEM NO. 6.11

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council)

From: Paul J. Philips, City Manager

Staff: Alex Gonzalez, Director of Development Services and Administration
William Hayes, Field Operations and Asset Superintendent

Date: December 8, 2016

SUBJECT: Consideration of a Professional Services Agreement with Jason Addison Smith Consulting Services, Inc. for Construction Management Support Services in an amount not to exceed $499,200.00 from December 8, 2016 to December 8, 2017 with two additional one-year renewal options

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City staff reviewed and determined that additional construction management support services are needed in order to complete City projects on time and within budget. Jason Addison Smith Consulting Services, Inc., ("JAS") is qualified and has been performing construction management support services for over twenty-two years to local and regional entities including the Counties of Santa Barbara, Los Angeles and San Bernardino, and the Cities of Beverly Hills, Newport Beach, Santa Monica, Irvine and Yorba Linda among other agencies.

Consultant services for the City of Industry ("City") would include, but are not limited to, overseeing and managing a construction project from pre-construction through the project completion for all types of general construction, conduct and document observations of construction as it progresses to verify that construction is completed in general compliance with the plans, standards, specification codes, and regulations. The consultant shall also be responsible for maintaining a daily job log of site conditions and activities, and provide supervision of on-site work to ensure the work is done completely and efficiently.

Fiscal Impact

The Professional Services Agreement will be supported by the 2015 Sales Tax Revenue Bond proceeds. An appropriation of $499,200.00 shall be made to Capital Improvement Projects – Administration – Professional Services (account no. 120-706-5120.01) to cover the costs of the Agreement. The City will work to recover the costs of this contract through cost recovery agreements with developers.

Recommendation

1.) Staff recommends that Jason Addison Smith Consulting Services, Inc., be awarded a Professional Services Agreement to provide construction management support services in an amount not to exceed $499,200.00 in an amount not to exceed $499,200.00 from December 8, 2016 to December 8, 2017 with two additional one-year renewal options; and
2.) Appropriate $499,200.00 to Capital Improvement Projects – Administration – Professional Services (account no. 120-706-5120.01) to cover the costs of the Agreement.

Exhibits

A. Professional Services Agreement with Jason Addison Smith Consulting Services, Inc., for construction management support services in an amount not to exceed $499,200.00 from December 8, 2016 to December 8, 2017 with two additional one-year renewal options

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PJP:AG:WH:kw

EXHIBIT A

Professional Services Agreement with Jason Addison Smith Consulting Services, Inc., for construction management support services in an amount not to exceed $499,200.00 from December 8, 2016 to December 8, 2017 with two additional one-year renewal options

[Attached]

CITY OF INDUSTRY

PROFESSIONAL SERVICES AGREEMENT

This PROFESSIONAL SERVICES AGREEMENT ("Agreement"), is made and effective as of December 8, 2016 ("Effective Date"), between the City of Industry, a municipal corporation ("City") and Jason Addison Smith Consulting Services, Inc., a California corporation ("Consultant"). The City and Consultant are hereinafter collectively referred to as the "Parties".

RECITALS

WHEREAS, City desires to engage Consultant to perform the services described herein, and Consultant desires to perform such services in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions herein contained, City and Consultant agree as follows:

1. TERM

This Agreement shall commence on the Effective Date, and shall remain and continue in effect until tasks described herein are completed, but in no event later than December 8, 2017, unless sooner terminated pursuant to the provisions of this Agreement. Notwithstanding the foregoing, the City may, at its sole discretion, extend this Agreement for two (2) one-year periods.

2. SERVICES

(a) Consultant shall perform the tasks ("Services") described and set forth in Exhibit A, attached hereto and incorporated herein as though set forth in full. ("Scope of Services"). Tasks other than those specifically described in the Scope of Services shall not be performed without prior written approval of the City. The Services shall be performed by Consultant, unless prior written approval is first obtained from the City. In the event of conflict or inconsistency between the terms of this Agreement and Exhibit A, the terms of this Agreement shall prevail.

(b) City shall have the right to request, in writing, changes to the Services. Any such changes mutually agreed upon by the Parties, and any corresponding increase or decrease in compensation, shall be incorporated by written amendment to this Agreement.

(c) Consultant shall perform all Services in a manner reasonably satisfactory to the City and in a first-class manner in conformance with the standards of quality normally observed by an entity providing construction management support services, serving a municipal agency.

(d) Consultant shall comply with all applicable federal, state, and local laws,

regulations and ordinances in the performance of this Agreement, including but not limited to, the conflict of interest provisions of Government Code Section 1090 and the Political Reform Act (Government Code Section 81000 *et seq.*)). During the term of this Agreement, Consultant shall not perform any work for another person or entity for whom Consultant was not working on the Effective Date if both (i) such work would require Consultant to abstain from a decision under this Agreement pursuant to a conflict of interest statute or law; and (ii) City has not consented in writing to Consultant's performance of such work. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* Consultant hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Consultant was an employee, agent, appointee, or official of the City in the previous twelve (12) months, Consultant warrants that it did not participate in any manner in the forming of this Agreement. Consultant understands that, if this Agreement is made in violation of Government Code §1090 *et. seq.*, the entire Agreement is void and Consultant will not be entitled to any compensation for Services performed pursuant to this Agreement, and Consultant will be required to reimburse the City for any sums paid to the Consultant. Consultant understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

(e) Consultant represents that it has, or will secure at its own expense, all licensed personnel required to perform the Services. All Services shall be performed by Consultant or under its supervision, and all personnel engaged in the Services shall be qualified and licensed to perform such services.

3. MANAGEMENT

City's City Manager shall represent the City in all matters pertaining to the administration of this Agreement, review and approval of all products submitted by Consultant, but shall have no authority to modify the Services or the compensation due to Consultant.

4. PAYMENT

(a) The City agrees to pay Consultant monthly, in accordance with the payment rates and terms and the schedule of payment as set forth in Exhibit B ("Rate Schedule"), attached hereto and incorporated herein by this reference as though set forth in full, based upon actual time spent on the above tasks. This amount shall not exceed Four Hundred Ninety-Nine Thousand Two Hundred Dollars ($499,200.00) for the total Term of the Agreement unless additional payment is approved as provided in this Agreement.

(b) Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement which are in addition to those set forth herein, unless such additional services are authorized in advance and in writing by the City. Consultant shall be compensated for any additional services in the amounts and in the manner as

agreed to by City and Consultant at the time City's written authorization is given to Consultant for the performance of said services.

(c) Consultant shall submit invoices monthly for actual services performed. Invoices shall be submitted on or about the first business day of each month, or as soon thereafter as practical, for services provided in the previous month. Payment shall be made within thirty (30) days of receipt of each invoice as to all non-disputed fees. If the City disputes any of Consultant's fees it shall give written notice to Consultant within thirty (30) days of receipt of an invoice of any disputed fees set forth on the invoice. Any final payment under this Agreement shall be made within 45 days of receipt of an invoice therefore.

5. SUSPENSION OR TERMINATION OF AGREEMENT

(a) The City may at any time, for any reason, with or without cause, suspend or terminate this Agreement, or any portion hereof, by serving upon the Consultant at least ten (10) days prior written notice. Upon receipt of said notice, the Consultant shall immediately cease all work under this Agreement, unless the notice provides otherwise. If the City suspends or terminates a portion of this Agreement such suspension or termination shall not make void or invalidate the remainder of this Agreement.

(b) In the event this Agreement is terminated pursuant to this Section, the City shall pay to Consultant the actual value of the work performed up to the time of termination, provided that the work performed is of value to the City. Upon termination of the Agreement pursuant to this Section, the Consultant shall submit an invoice to the City pursuant to Section 5 of this Agreement.

6. OWNERSHIP OF DOCUMENTS

(a) Consultant shall maintain complete and accurate records with respect to sales, costs, expenses, receipts, and other such information required by City that relate to the performance of services under this Agreement. Consultant shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Consultant shall provide free access to the representatives of City or its designees at reasonable times to review such books and records; shall give City the right to examine and audit said books and records; shall permit City to make transcripts or copies therefrom as necessary; and shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement. Such records, together with supporting documents, shall be maintained for a period of three (3) years after receipt of final payment.

(b) Upon completion of, or in the event of termination or suspension of this Agreement, all original documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared in the course of providing the services to be performed pursuant to this Agreement shall become the sole property of the City and may be used, reused, or otherwise disposed of by the City without the permission of the Consultant. With respect to computer files, Consultant shall make available to the City, at

the Consultant's office, and upon reasonable written request by the City, the necessary computer software and hardware for purposes of accessing, compiling, transferring, copying and/or printing computer files. Consultant hereby grants to City all right, title, and interest, including any copyright, in and to the documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared by Consultant in the course of providing the services under this Agreement. All reports, documents, or other written material developed by Consultant in the performance of the Services pursuant to this Agreement, shall be and remain the property of the City.

7. INDEMNIFICATION

(a) Indemnity for professional liability

When the law establishes a professional standard of care for Consultant's Services, to the fullest extent permitted by law, Consultant shall indemnify, protect, defend and hold harmless the City and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses, including legal counsel's fees and costs caused in whole or in part by any negligent or wrongful act, error or omission of Consultant, its officers, agents, employees or Subconsultants (or any agency or individual that Consultant shall bear the legal liability thereof) in the performance of professional services under this Agreement.

(b) Indemnity for other than professional liability

Other than in the performance of professional services and to the full extent permitted by law, Consultant shall indemnify, defend and hold harmless City, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this Agreement by Consultant or by any individual or agency for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant.

(c) DUTY TO DEFEND. In the event the City, its officers, employees, agents and/or volunteers are made a party to any action, claim, lawsuit, or other adversarial proceeding arising from the performance of the services encompassed by this Agreement, and upon demand by City, Consultant shall have an immediate duty to defend the City at Consultant's cost or at City's option, to reimburse the City for its costs of defense, including reasonable attorney's fees and costs incurred in the defense of such matters.

Payment by City is not a condition precedent to enforcement of this indemnity. In the event of any dispute between Consultant and City, as to whether liability arises from the sole negligence of the City or its officers, employees, or agents, Consultant will be obligated to pay for City's defense until such time as a final judgment has been entered adjudicating the City as solely negligent. Consultant will not be entitled in the absence of such a

determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

8. INSURANCE

Consultant shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit C attached hereto and incorporated herein by reference.

9. INDEPENDENT CONSULTANT

(a) Consultant is and shall at all times remain as to the City a wholly independent consultant and/or independent contractor. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultants exclusive direction and control. Neither City nor any of its officers, employees, or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that it or any of its officers, employees, or agents are in any manner officers, employees, or agents of the City. Consultant shall not incur or have the power to incur any debt, obligation, or liability whatever against the City, or bind the City in any manner.

(b) No employee benefits shall be available to Consultant in connection with the performance of this Agreement. Except for the fees paid to Consultant as provided in the Agreement, City shall not pay salaries, wages, or other compensation to Consultant for performing services hereunder for City. City shall not be liable for compensation or indemnification to Consultant for injury or sickness arising out of performing services hereunder.

10. LEGAL RESPONSIBILITIES

The Consultant shall keep itself informed of State and Federal laws and regulations which in any manner affect those employed by it or in any way affect the performance of its service pursuant to this Agreement. The Consultant shall at all times observe and comply with all such laws and regulations. The City, and its officers and employees, shall not be liable at law or in equity occasioned by failure of the Consultant to comply with this Section.

11. UNDUE INFLUENCE

Consultant declares and warrants that no undue influence or pressure was used against or in concert with any officer or employee of the City in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential financial arrangement, or financial inducement. No officer or employee of the City has or will receive compensation, directly or indirectly, from Consultant, or from any officer, employee or agent of Consultant, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section shall be a material breach of this Agreement entitling the City to any and all remedies at law or in equity.

12. NO BENEFIT TO ARISE TO LOCAL OFFICERS AND EMPLOYEES

No member, officer, or employee of City, or their designees or agents, and no public official who exercises authority over or responsibilities with respect to the Project during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement, or the proceeds thereof, for work to be performed in connection with the Project performed under this Agreement.

13. RELEASE OF INFORMATION/CONFLICTS OF INTEREST

(a) All information gained by Consultant in performance of this Agreement shall be considered confidential and shall not be released by Consultant without City's prior written authorization. Consultant, its officers, employees, agents, or subconsultants, shall not without written authorization from the City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the work performed under this Agreement or relating to any project or property located within the City, unless otherwise required by law or court order. (b) Consultant shall promptly notify City should Consultant, its officers, employees, agents, or subconsultants be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions, or other discovery request ("Discovery"), court order, or subpoena from any person or party regarding this Agreement and the work performed there under or with respect to any project or property located within the City, unless Consultant is prohibited by law from informing the City of such Discovery, court order or subpoena. City retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding as allowed by law. Unless City is a party to the lawsuit, arbitration, or administrative proceeding and is adverse to Consultant in such proceeding, Consultant agrees to cooperate fully with the City and to provide the opportunity to review any response to discovery requests provided by Consultant. However, City's right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

14. NOTICES

Any notices which either party may desire to give to the other party under this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, which provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, addressed to the address of the party as set forth below or at any other address as that party may later designate by notice:

To City:	City of Industry 15625 E. Stafford, Suite 100 City of Industry, CA 91744 Attention: City Manager
With a Copy To:	James M. Casso, City Attorney

Casso & Sparks, LLP
13200 Crossroads Parkway North, Suite 345
City of Industry, CA 91746

To Consultant: Jason Smith, CEO
Jason Addison Smith Consulting Services, Inc.
201 N. Euclid Avenue, Suite A
Upland, CA 91786

15. ASSIGNMENT

The Consultant shall not assign the performance of this Agreement, nor any part thereof, nor any monies due hereunder, without prior written consent of the City.

Before retaining or contracting with any subconsultant for any services under this Agreement, Consultant shall provide City with the identity of the proposed subconsultant, a copy of the proposed written contract between Consultant and such subconsultant which shall include and indemnity provision similar to the one provided herein and identifying City as an indemnified party, or an incorporation of the indemnity provision provided herein, and proof that such proposed subconsultant carries insurance at least equal to that required by this Agreement or obtain a written waiver from the City for such insurance.

Notwithstanding Consultant's use of any subconsultant, Consultant shall be responsible to the City for the performance of its subconstultant as it would be if Consultant had performed the Services itself. Nothing in this Agreement shall be deemed or construed to create a contractual relationship between the City and any subconsultant employed by Consultant. Consultant shall be solely responsible for payments to any subconsultants. Consultant shall indemnify, defend and hold harmless the Indemnified Parties for any claims arising from, or related to, the services performed by a subconsultant under this Agreement.

16. GOVERNING LAW/ATTORNEYS' FEES

The City and Consultant understand and agree that the laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement and also govern the interpretation of this Agreement. Any litigation concerning this Agreement shall take place in the municipal, superior, or federal district court in Los Angeles County, California. If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of or relating to the Services provided by Consultant under this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and all related costs, including costs of expert witnesses and consultants, as well as costs on appeal, in addition to any other relief to which it may be entitled.

17. ENTIRE AGREEMENT

This Agreement contains the entire understanding between the Parties relating to the obligations of the Parties described in this Agreement. All prior or contemporaneous

agreements, understandings, representations, and statements, oral or written and pertaining to the subject of this Agreement or with respect to the terms and conditions of this Agreement, are merged into this Agreement and shall be of no further force or effect. Each party is entering into this Agreement based solely upon the representations set forth herein and upon each party's own independent investigation of any and all facts such party deems material.

18. SEVERABILITY

If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to, the extent necessary to cure such invalidity or unenforceability, and in its amended form shall be enforceable. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

19. COUNTERPARTS

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

20. CAPTIONS

The captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and shall have no significance in the interpretation of this Agreement.

21. WAIVER

The waiver by City or Consultant of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or of any subsequent breach of the same or any other term, covenant or condition herein contained. No term, covenant or condition of this Agreement shall be deemed to have been waived by City or Consultant unless in writing.

22. REMEDIES

Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance of the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any of all of such other rights, powers or remedies.

23. AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of Consultant represents and warrants that he/she has the authority to execute this Agreement on behalf of the Consultant and has the authority to bind Consultant to the performance of its obligations hereunder.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the Effective Date.

"CITY"
City of Industry

By:_____
Paul Philips, City Manager

"CONSULTANT"
Jason Addison Smith Consulting Services, Inc.

By_____
Jason Smith, CEO

Attest:

By:_____
Cecelia Dunlap, Deputy City Clerk

Approved as to form:

By:_____
James M. Casso, City Attorney

Attachments:	Exhibit A	Scope of Services
	Exhibit B	Rate Schedule
	Exhibit C	Insurance Requirements

EXHIBIT A

SCOPE OF SERVICES

Consultant services shall include, but are not limited to:

- Oversee and manage a construction project from preconstruction through the project completion for all types of general construction;
- Ensure projects are conducted in accordance with design, budget and schedule;
- Conduct and document observations of construction as it progresses to verify that construction is completed in general compliance with the plans, standards, specification codes, and regulations;
- Maintain a daily job log of site conditions and activities;
- Review contractor's requisition and change orders; interpreted/clarified contract documents;
- Provide quantity take off and cost estimating;
- Review new projects for constructability;
- Confirm building lay out by verifying the actual existing elevation on the project site according to plans and specifications;
- Lead quality control by observing the contractor's inspections and preparing daily construction reports;
- Schedule, monitor and review punch lists and prepare for occupancy;
- Provide management support in all aspects of the project through planning and regular analysis of schedule, quality and cost;
- Provide supervision of on-site work to ensure the work is done completely and efficiently;
- Provide supervision of on-site work to ensure the work is done completely and efficiently;
- Review the work or each trade and confirm that not only the quality of the work is up to standard, but that the work is being built in accordance with the plans and specifications;

- Ensure that the project maintains the required schedule by organizing, planning, monitoring, and reviewing work;
- Organize and run progress, quality control and safety meetings with appropriate staff, subcontractors and the City; and
- Ability to multi-task, solve problems, and following through completing punch-lists.

EXHIBIT B

RATE SCHEDULE

Consultant shall be paid the hourly rate set forth below:

CONSTRUCTION MANAGEMENT	
Project Manager	$120.00 / Hour

EXHIBIT C

INSURANCE REQUIREMENTS

Without limiting Consultant's indemnification of City, and prior to commencement of the Services, Consultant shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to Agency.

General liability insurance. Consultant shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $1,000,000.00 per occurrence, $2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. Consultant shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Consultant arising out of or in connection with Work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000.00 combined single limit for each accident.

Professional liability (errors & omissions) insurance. Consultant shall maintain professional liability insurance that covers the Services to be performed in connection with this Agreement, in the minimum amount of $1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this agreement and Consultant agrees to maintain continuous coverage through a period no less than three years after completion of the services required by this agreement.

Workers' compensation insurance. Consultant shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000.00).

Consultant shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of Agency, its officers, agents, employees and volunteers.

Proof of insurance. Consultant shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this contract. City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may

arise from or in connection with the performance of the Services hereunder by Consultant, his agents, representatives, employees or subconsultants.

Primary/noncontributing. Coverage provided by Consultant shall be primary and any insurance or self-insurance procured or maintained by City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Consultant, or City will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). Consultant acknowledges and agrees that any actual or alleged failure on the part of the City to inform Consultant of non-compliance with any requirement imposes no additional obligations on the Agency nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. Consultant agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Consultant agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by Consultant, provide the same minimum insurance coverage and endorsements required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Consultant agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise specifications. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Consultant ninety (90) days advance written notice of such change. If such change results in substantial additional cost to the Consultant, the City and Consultant may renegotiate Consultant's compensation.

Self-insured retentions. Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. Consultant shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from Consultant's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. Consultant shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

CITY COUNCIL

ITEM NO. 6.12

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Clement N. Calvillo, City Engineer, CNC Engineering
Joshua Nelson, Deputy City Engineer, CNC Engineering
Upendra Joshi, Project Manager, CNC Engineering

Date: December 8, 2016

SUBJECT: Right-of-Way Agreement with Telecommunication Service Provider, Sunesys, Inc. - JN-6207

The City has received an application for an encroachment permit from a telecommunication service provider, Sunesys, Inc., to locate certain facilities in City Right-of-Way. Sunesys, Inc. does not have and is not required to have a franchise agreement with the City, but is permitted under State law to use City right-of-ways for their facilities subject to such reasonable and uniformly applied time, place and manner regulations as may be imposed by the City.

As part of the encroachment permit process, the City is requiring Sunesys, Inc. to enter into a Right-of-Way Agreement in order to establish clear terms and conditions under which such facilities may be placed in the City's Right-of-Way, including Sunesys, Inc.'s obligation to remove and relocate their facilities under prescribed circumstances. Sunesys, Inc. has reviewed and agreed to the proposed Agreement.

Staff recommends that the City Council approve the Right-of-Way Agreement and authorize the Mayor and Chief Deputy City Clerk to execute the same. After the City Council approval, any work proposed by Sunesys, Inc. within the City Right-of-Way will be reviewed and approved by the City Engineer as part of the encroachment permit process.

Exhibit:

A. Right-of-Way Agreement between the City of Industry and Sunesys, Inc.

PJP/CC/JN/UJ:af

EXHIBIT A

Right-of-Way Agreement between the City of Industry and Sunesys, LLC

[Attached]

RIGHT-OF-WAY AGREEMENT

This Right-of-Way Agreement ("Agreement") is entered into as of December 8, 2016 (the "Effective Date"), between the City of Industry, California, a California a municipal corporation ("CITY"), and Sunesys, LLC, a Delaware limited liability company ("UTILITY"). CITY and UTILITY are individually referred to in this Agreement as a "Party", and collectively as the "Parties."

RECITALS

A. UTILITY is authorized to provide telecommunications services within the state of California ("State") pursuant to a Certificate of Public Convenience and Necessity issued by the Public Utilities Commission of the State of California (Certificate No. 06-06-047).

B. UTILITY has the requisite authority to construct, install, and maintain facilities that occupy public rights-of-way, located as set forth in Exhibit B, attached hereto and incorporated herein by reference, within the territorial limits of the CITY (the "Territory") and to otherwise provide telecommunications services, and desires to construct, install, and maintain such facilities.

C. The Parties desire to establish the terms and conditions on which UTILITY will access and occupy the CITY's public rights-of-way for purposes of constructing, installing, and maintaining facilities in the CITY's Territory in connection with its provision of telecommunications services.

NOW, THEREFORE, in consideration of the mutual agreements, provisions, and covenants contained in this Agreement, the Parties agree as follows:

I. SCOPE OF RIGHTS AND OBLIGATIONS

A. Installation and Operation of Facilities. Subject to the terms of this Agreement, all applicable CITY laws, ordinances, codes, policies and administrative regulations, including, but not limited to, Chapter 12.08 of the Industry Municipal Code, as they may be amended (collectively "CITY laws"); and the issuance of any applicable permits required by the CITY laws or any other Federal or State laws (including any permits for the making of excavations, fills, or obstructions in any streets or highways in the Territory required by the CITY), UTILITY may, at UTILITY's expense and during the Term:

1. locate, lay, place, attach, install, control, construct, repair, and maintain wires, cables, pipes, and other equipment and services (the "Facilities") on, in, along, across, under, over, or through the streets, alleys, highways, bridges, or other dedicated public vehicular rights-of-way, in the Territory (i) owned or acquired by the CITY from and after the Effective Date, or (ii) over which the CITY has or acquires

jurisdiction or control from and after the Effective Date (the "Rights-of-Way"); and

2. operate and use the Facilities to conduct its business in the Territory.

B. Permitted Uses. This Agreement does not convey any property interest to UTILITY, nor may UTILITY claim under this Agreement any property interest, in the Rights-of-Way. The rights granted to UTILITY and arising under this Agreement are subject and subordinate to the CITY's right to use the Rights-of-Way in the performance of its Public Duties. For purposes of this Agreement, "Public Duties" means the laying, installation, maintenance, protection, replacement, and removal of sanitary sewers, water mains, storm drains, gas mains, overhead and underground electric lines, telephone lines, cable television lines, together with any appurtenances thereof and the right of egress and ingress on, along, across, under, over, and through the Rights-of-Way, and any change of grade, alignment or width of the Rights-of-Way, the installation of curbs, gutters, or landscaping along the Rights-of-Way, and any maintenance, repair, or resurfacing of any Rights-of-Way.

C. No Interference. Except as authorized or permitted by applicable law, in the performance of and exercise of its rights under this Agreement, UTILITY may not materially interfere with the operation of any sanitary sewers, water mains, storm drains, gas mains, overhead and underground electric lines, telephone lines, cable television lines, or facilities relating thereto, located in the Territory and owned or controlled by the CITY or a third party. UTILITY shall not obstruct any public street or sidewalk without obtaining such encroachment permits or other approvals as may be required by CITY. UTILITY shall conduct construction, maintenance or repair work only during those hours set forth in the approved encroachment permit(s).

D. Maintenance. UTILITY agrees to maintain its Facilities in good condition at all times during the Term. In the event that any Facilities cause damage to the CITY's Rights-of-Way or interfere with the performance of any Public Duties or other uses of the Rights-of-Way as provided in Section 1.C above, UTILITY agrees, upon notice from the CITY, to promptly commence and complete all necessary repairs to cure any such damage caused by the Facilities, at its own cost and expense.

E. Removal and Relocation.

1. If UTILITY has attached or connected its Facilities to the facilities of other utilities or parties located in the Rights-of-Way such as light poles or telephone poles or is otherwise sharing such facilities pursuant to any lease, sublease or other agreement, the UTILITY will be bound to relocate or remove its Facilities at the same time and in the same manner as such utilities or parties at UTILITY's sole cost and expense.

2. UTILITY shall complete the removal or relocation no later than 90 days after its receipt of a removal order, or such earlier or later date as agreed between the Parties.

3. In the event that UTILITY fails to remove and relocate the Facilities identified in the removal order within the applicable time period established under Section I.E.1 above, then such Facilities will automatically be deemed abandoned and may be removed or caused to be removed by the CITY or any third party without liability to UTILITY for any damages or costs of any kind.

F. Abandonment

1. Nothing in this Agreement may be construed as requiring UTILITY to exercise its rights hereunder. Accordingly, UTILITY may abandon any of its Facilities in its sole discretion at any time upon written notice to the CITY (an "Abandoned Facility"). In the event UTILITY abandons one or more Facilities, UTILITY will, at its sole expense, vacate and remove the Facilities within six (6) months of such abandonment. UTILITY's obligations arising under this Section 1.F are in addition to obligations imposed on UTILITY by applicable CITY laws or other laws relating to the refilling of excavations or removal of obstructions. Notwithstanding the foregoing, with the CITY's written consent, UTILITY will not be required to vacate or remove an Abandoned Facility, and such Abandoned Facility will convey to the CITY as part of such written agreement.

2. If UTILITY fails to vacate or remove an Abandoned Facility (or otherwise obtain consent from the CITY not to vacate or remove the Abandoned Facility) within six (6) months of its notice of abandonment, the CITY will deliver UTILITY written notice of such failure. UTILITY will have an additional three (3) months from and after the date it receives such notice from the CITY to remove the Abandoned Facility. If UTILITY fails to vacate or remove the Abandoned Facility after such three-month period, the CITY may either (i) remove the Abandoned Facility at UTILITY's expense, which expense UTILITY must remit to the CITY within sixty (60) days of receiving an invoice from the CITY setting forth the nature and scope of such expenses; or (ii) deem the Abandoned Facility to have been abandoned and conveyed to the CITY.

G. Non-Exclusivity. UTILITY acknowledges that the rights granted under this Agreement are not exclusive, and that CITY may grant the same or similar rights and privileges to other authorized persons or companies, provided that such grant of rights or privileges does not materially interfere with UTILITY's Facilities.

II. TERM

A. Term. The initial term of this Agreement is for 10 years from the Effective Date (the "Initial Term"), unless otherwise terminated as set forth herein.

B. Renewal. Upon the expiration of the Initial Term, this Agreement will automatically renew for successive one-year terms unless UTILITY notifies CITY of its intent not to renew the Agreement (any such period, the "Renewal Term," together with the Initial Term, the "Term"). Such notice must be made in writing no less than 30 days prior to the expiration of the Initial Term or the Renewal Term, as applicable.

C. Effect of Expiration. Upon the expiration of this Agreement, all rights and obligations between the Parties will cease except for UTILITY's removal obligations under Section 1.E and its indemnity obligations under Section IV.D, which will expressly survive the expiration of this Agreement. Notwithstanding the forgoing, the expiration of this Agreement, will not affect or diminish either Party's rights, claims, or remedies available in equity, at law or otherwise arising hereunder.

D. Termination. This Agreement may be terminated by the CITY upon 30 days' prior written notice to the UTILITY for breach of the Agreement. Upon receipt of the termination notice, UTILITY shall have 30 days to cure the breach, and provide evidence to the satisfaction of the CITY that the breach is cured. In the event the breach remains uncured, and the CITY has not provided an extension to cure, the termination shall be effective.

III. COMPLIANCE WITH APPLICABLE LAW

UTILITY agrees to comply with all CITY laws; provided, however, that such laws are consistent with State and Federal laws, including those relating to UTILITY's right to construct, install, and maintain the Facilities and its right to provide intrastate and interstate telecommunications services. In the event of a conflict between such laws and this Agreement, the provisions of such laws will control.

IV. MISCELLANEOUS

A. Assignment and Transfer of Control; Binding Effect. UTILITY may assign or transfer its rights and obligations under this Agreement to any other party upon prior notice to and consent from CITY based upon reasonable evidence that such party is authorized to maintain and operate the Facilities. Without limiting the generality of the foregoing, this Agreement is binding upon and will inure to the benefit of the Parties and their successors.

B. Notice. Every notice or response to be served on the CITY or UTILITY must be in writing and will be deemed to have been duly given to the required party on the earlier of: (i) where there is personal delivery; the date of actual receipt; or (ii) three (3) business days after having been posted in a properly sealed and correctly addressed envelope by certified or registered mail, postage prepaid, at a post office or branch thereof

regularly maintained by the U.S. Postal Service. Such notices or responses shall be addressed as follows:

If to the CITY:	City Manager CITY of Industry 15625 East Stafford Street, Suite #100 Industry, CA 91744
With copies to:	CNC Engineering 255 N. Hacienda Blvd. Industry, CA 91744
	James M. Casso, City Attorney Casso & Sparks, LLP 13200 Crossroads Parkway North, Suite 345 City of Industry, CA 91746
If to UTILITY:	Sunesys, LLC c/o Crown Castle 2000 Corporate Drive Canonsburg, PA 15317 Attn: Ken Simon, General Counsel
With a copy to:	Sunesys, LLC c/o Crown Castle 2000 Corporate Drive Canonsburg, PA 15317 Attn: SCN Contracts Management

C. Governing Law; Venue. This Agreement will be governed and construed in accordance with the laws of the State of California without regard to the principles of conflicts of laws thereof. All actions and proceedings arising out of or relating to this Agreement will be heard and determined in the municipal, superior, or federal district court in Los Angeles County, California, and the Parties hereby irrevocably submit to the exclusive jurisdiction of such courts in any such action or proceeding. If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of or relating to the UTILITY's use and operation of Facilities on City Territory, pursuant to Section I.A of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and all related costs, including costs of expert witnesses and consultants, as well as costs on appeal, in addition to any other relief to which it may be entitled.

D. Indemnification. UTILITY agrees to indemnify and hold harmless CITY from and against, any and all liabilities, claims, actions, causes of action, proceedings, suits, damages, judgments, liens, levies, costs and expenses of whatever nature, including reasonable attorneys' fees and disbursements (collectively, "Claims"), which the

CITY may suffer or incur or to which the CITY may become subject by reason of or arising out of any negligent or willfully wrongful acts or omissions of UTILITY, or its officers, employees, contractors or agents committed with respect to or arising from the installation, operation or use of UTILITY's Facilities under this Agreement.

E. Insurance. UTILITY shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit A attached hereto and incorporated herein by reference.

F. Approval for Use of Streetlights. Prior to commencement of the installation and operation of the Facilities, UTILITY shall obtain written approval from the owner of the streetlight to which the Facilities will be attached, and shall provide proof of such approval to the CITY. In the event the ownership of the streetlights is transferred during the Term of this Agreement; UTILITY shall provide the CITY with proof of written approval from any subsequent owner.

G. Counterparts; Effectiveness. This Agreement may be executed in two or more consecutive counterparts, each of which will be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument, and shall become effective when one or more counterparts have been signed by each of the Parties and delivered (by facsimile or otherwise) to the other Party.

H. Expenses. Except as otherwise provided under the CITY laws, all costs and expenses (including legal fees and expenses) incurred in connection with this Agreement and the transactions contemplated hereby will be paid by the Party incurring such expenses.

I. Electricity. Licensee shall pay for the electricity it consumes in its operations at the rate charged by the servicing utility company. Notwithstanding the foregoing, in the event that the ownership of the poles to which the Facilities are attached transfer in ownership to the CITY, or an entity of the CITY, UTILITY shall pay to the CITY the fee established by the CITY for the operation and maintenance of each pole.

J. Performance Bond. Licensee shall, within thirty (30) days of the Effective Date of this Agreement, file with the City Clerk, and maintain in full force and effect, a bond in favor of the City in the sum of Thirty Five Thousand Dollars ($35,000.00), conditioned that Licensee shall well and truly observe, fulfill, and perform each and every term and condition of this Agreement, and in case of a breach of condition of said Agreement, at the discretion of the City, the whole amount of the penal sum therein shall be available to the City in addition to any damages recoverable by the City.

Whenever the bond is used for any breach of a term or condition of this Agreement, the Licensee must maintain the full amount of the bond; and if the Licensee fails to do so within the time set by the City, the City may declare said Agreement automatically terminated.

Nothing herein shall insulate Licensee from liability in excess of the amount of said bond or shall be construed as a waiver by the City of any remedy at law against the Licensee for any breach of the terms and conditions of this Agreement, or for any damage, loss or injuries suffered by the City in case of any damage, loss or injury suffered by any person, firm, or corporation by reason of any work done or any activity conducted by the Licensee in the exercise of this Agreement.

K. Severability. If a court of competent jurisdiction finds any provision of this Agreement to be illegal, invalid or unenforceable, the Parties agree that such provision will be enforced to the maximum extent permissible so as to effect the intent of the Parties, and the validity, legality and enforceability of the remaining provisions of this Agreement will not in any way be affected or impaired thereby. If necessary to effectuate the intent of the Parties, the Parties will negotiate in good faith to amend this Agreement to replace the unenforceable language with enforceable language that reflects such intent as closely as possible.

L. Entire Agreement. This Agreement constitutes the entire agreement between the Parties, and supersedes all other prior written and oral agreements and understandings between the Parties, with respect to the subject matter hereof.

M. Waiver. Unless agreed to in writing by the Parties, the waiver by a Party of any breach, violation, or default of a provision of this Agreement will not operate as a waiver of any subsequent breach, violation, or default of that or of any other provision of this Agreement. No extension of time for the performance of any obligation or act required by a Party hereunder will be deemed to be an extension of time for the performance of any other obligation or act.

N. Headings. Captions and section headings used in this Agreement are for convenience of the Parties only, are not a part of this Agreement, and will be given no substantive or interpretive effect whatsoever.

O. Amendment. This Agreement may only be amended by a written agreement signed by both Parties.

P. Authority. Each individual executing this Agreement on behalf of each respective Party acknowledges and warrants that: (i) it has full authority to execute this Agreement on behalf of such Party, (ii) this Agreement has been duly authorized and approved by such Party, and (iii) this Agreement constitutes a valid and binding obligation of such Party.

IN WITNESS WHEREOF, the Parties hereto have executed and delivered this Agreement, or caused it to be executed and delivered, as of the Effective Date.

"CITY"

City of Industry

By:_____
Paul J. Philips, City Manager

Attest:

By:_____
Diane M. Schlichting, Chief Deputy City Clerk

Approved as to form:

By:_____
James M. Casso, City Attorney

"UTILITY"

SUNESYS, LLC

By_____
John A Timney, VP BPMR

Attachments: Exhibit A Insurance Requirements
Exhibit B Location Maps

EXHIBIT A
INSURANCE REQUIREMENTS

Without limiting UTILITY's indemnification of City, and prior to commencement of the installation of the Facilities, UTILITY shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to the City.

General liability insurance. UTILITY shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $1,000,000.00 per occurrence, $2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. UTILITY shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the UTILITY arising out of or in connection with the installation and operation of the Facilities to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000.00 combined single limit for each accident.

Workers' compensation insurance. UTILITY shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000.00).

UTILITY shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of the City, its officers, agents, employees and volunteers.

Proof of insurance. UTILITY shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this contract. City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. UTILITY shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of installation and operation of the Facilities hereunder by UTILITY, its agents, representatives, employees or subconsultants.

Primary/noncontributing. Coverage provided by UTILITY shall be primary and any insurance or self-insurance procured or maintained by City shall not be required to

contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event, any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by UTILITY. In the alternative, City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this Agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow UTILITY or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. UTILITY hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). UTILITY acknowledges and agrees that any actual or alleged failure on the part of the City to inform UTILITY of non-compliance with any requirement imposes no additional obligations on the City nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the UTILITY maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the UTILITY. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. UTILITY agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for

nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that UTILITY's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. UTILITY agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by UTILITY, provide the same minimum insurance coverage and endorsements required of UTILITY. UTILITY agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. UTILITY agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise specifications. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the UTILITY ninety (90) days advance written notice of such change.

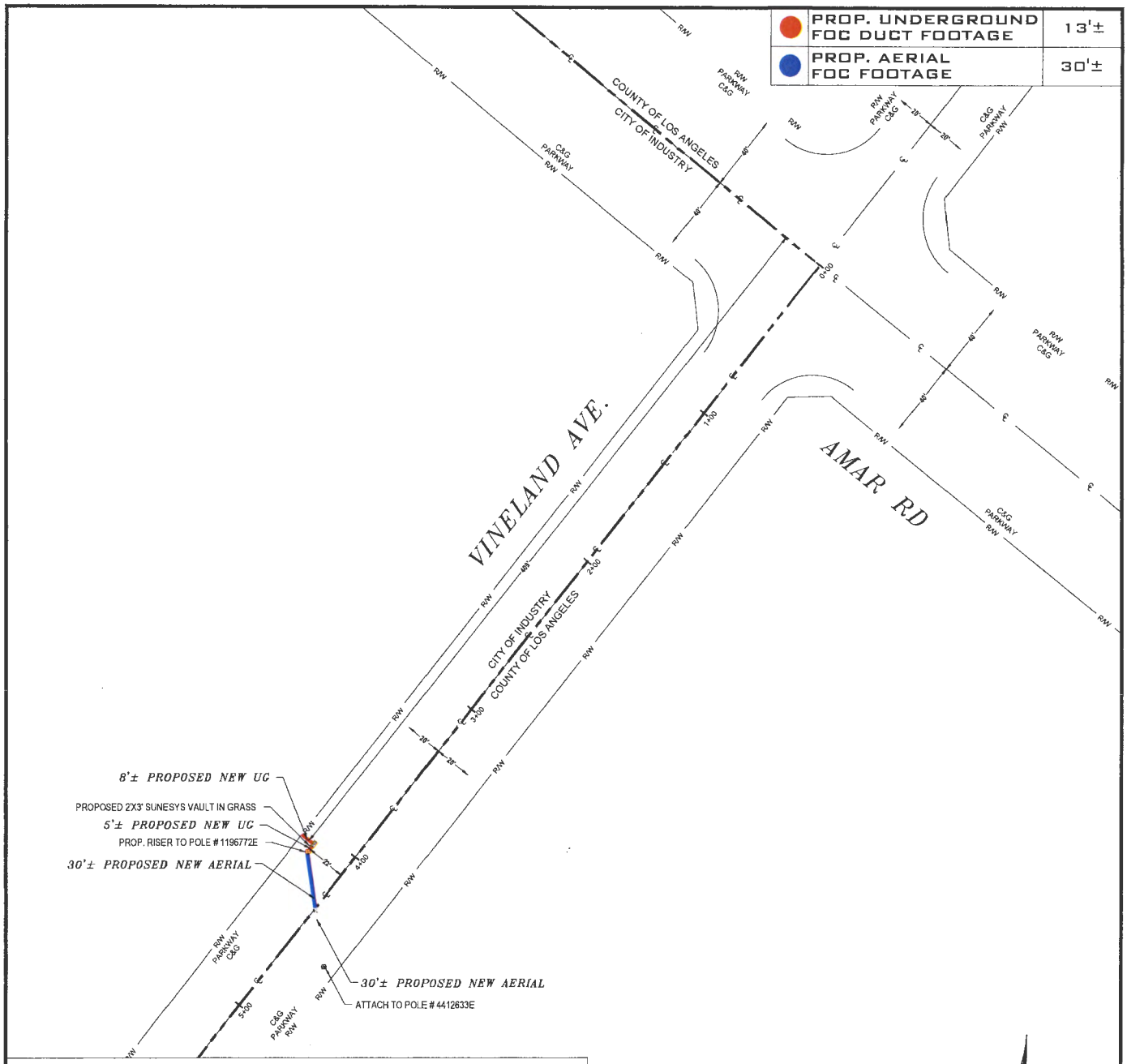
Self-insured retentions. Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. UTILITY shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from UTILITY's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. UTILITY shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

EXHIBIT – B

Location Maps



SCALE 1:80

BILL OF MATERIAL

NO.	MATERIAL	QUANTITY	FOOTAGE
1	1-2" HDPE/MDPE CONDUIT	—	5' LF
2	1-1 1/4" HDPE/MDPE CONDUIT	—	8' LF
3	PROP. AERIAL F.O.C	—	30' LF
4	2' X 3' FIBER PULLBOX	1	—

sunesys
|| Fiber.Faster. ||

DESIGNED BY.....

KB ENGINEERING

WWW.KBENG.NET

CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: 751 VINELAND AVE

PROJECT DESCRIPTION: RISER DOWN POLE #1196772E AND STUB TO PROPERTY

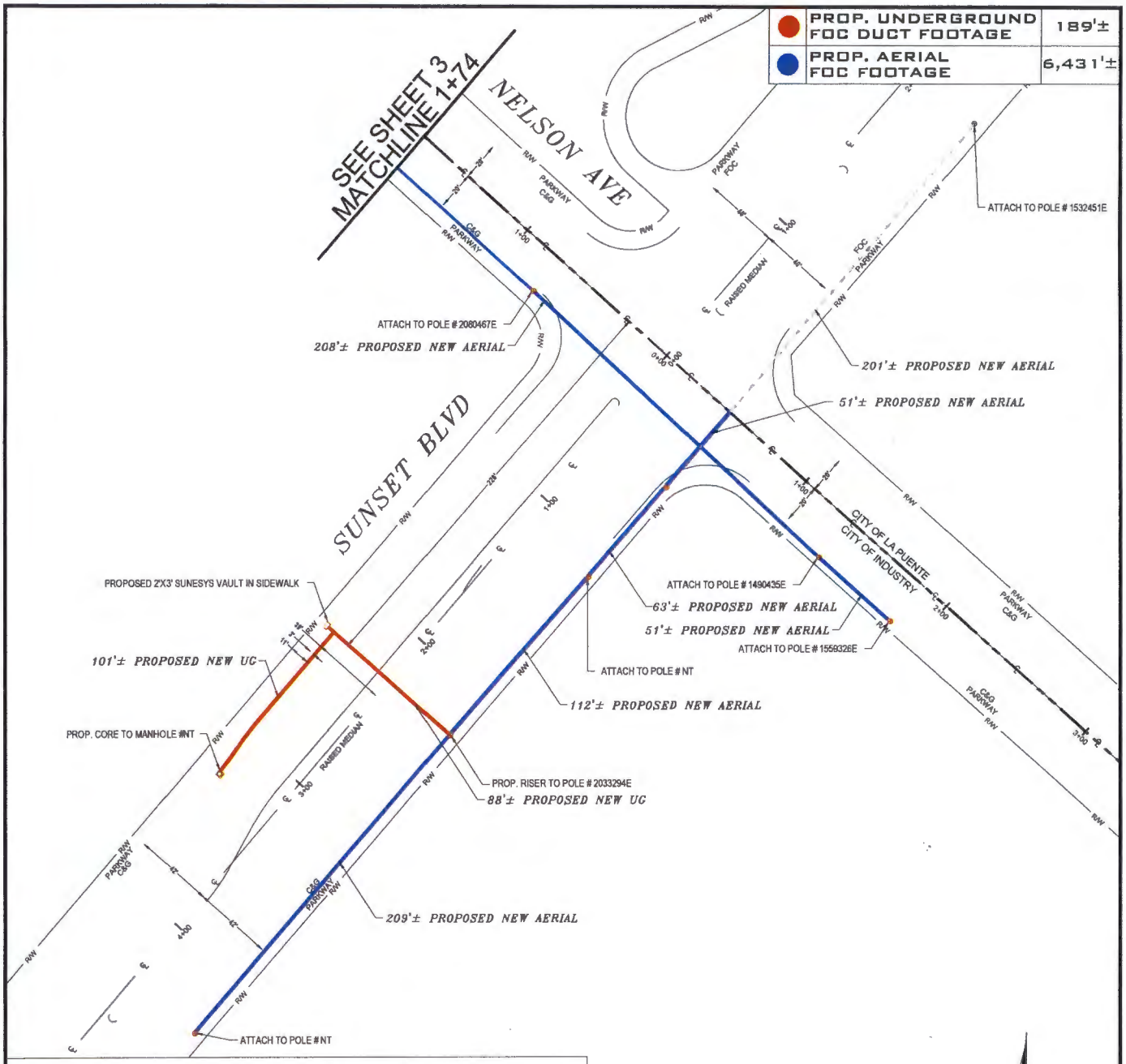
930-BASSE-S01-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
1 OF 12

PROP. UNDERGROUND FOC DUCT FOOTAGE	189'±
PROP. AERIAL FOC FOOTAGE	6,431'±



BILL OF MATERIAL

NO.	MATERIAL	QUANTITY	FOOTAGE
1	1-4" HDPE/MDPE CONDUIT	—	101' LF
2	1-2" HDPE/MDPE CONDUIT	—	88' LF
3	PROP. AERIAL F.O.C	—	694' LF
4	2' X 3' FIBER PULLBOX	1	—

N

SCALE 1:80

sunesys
|| Fiber.Faster. ||

DESIGNED BY.....

KB ENGINEERING

WWW.KBENG.NET

CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: SUNSET BLVD & NELSON AVE

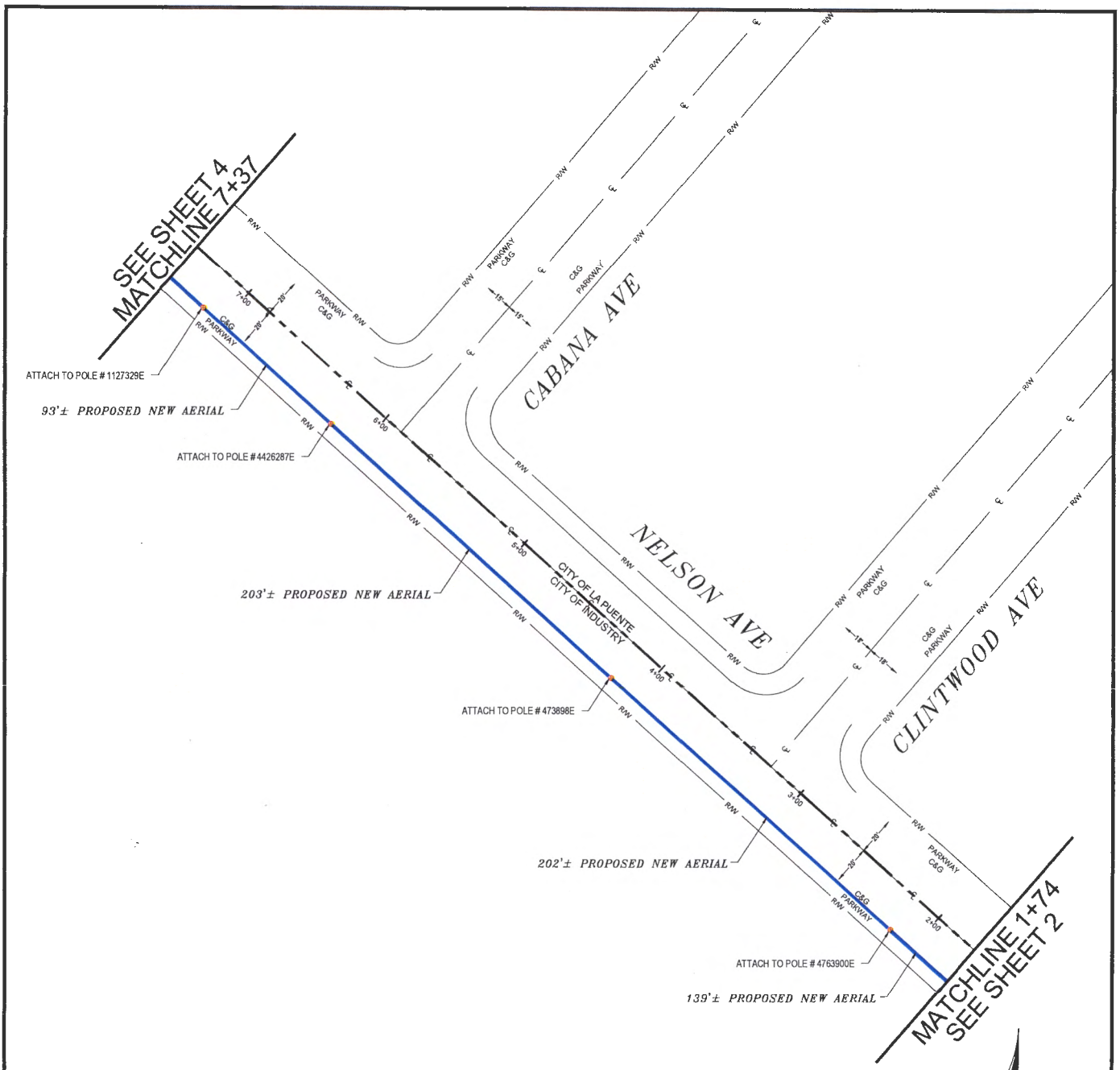
PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-B01-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
2 OF 12



SCALE 1:80

BILL OF MATERIAL			
NO.	MATERIAL	QUANTITY	FOOTAGE
1	PROP. AERIAL F.O.C	—	637' LF

sunesys
|| Fiber.Faster. ||

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KB ENGINEERING

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CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires
June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: SUNSET BLVD & NELSON AVE

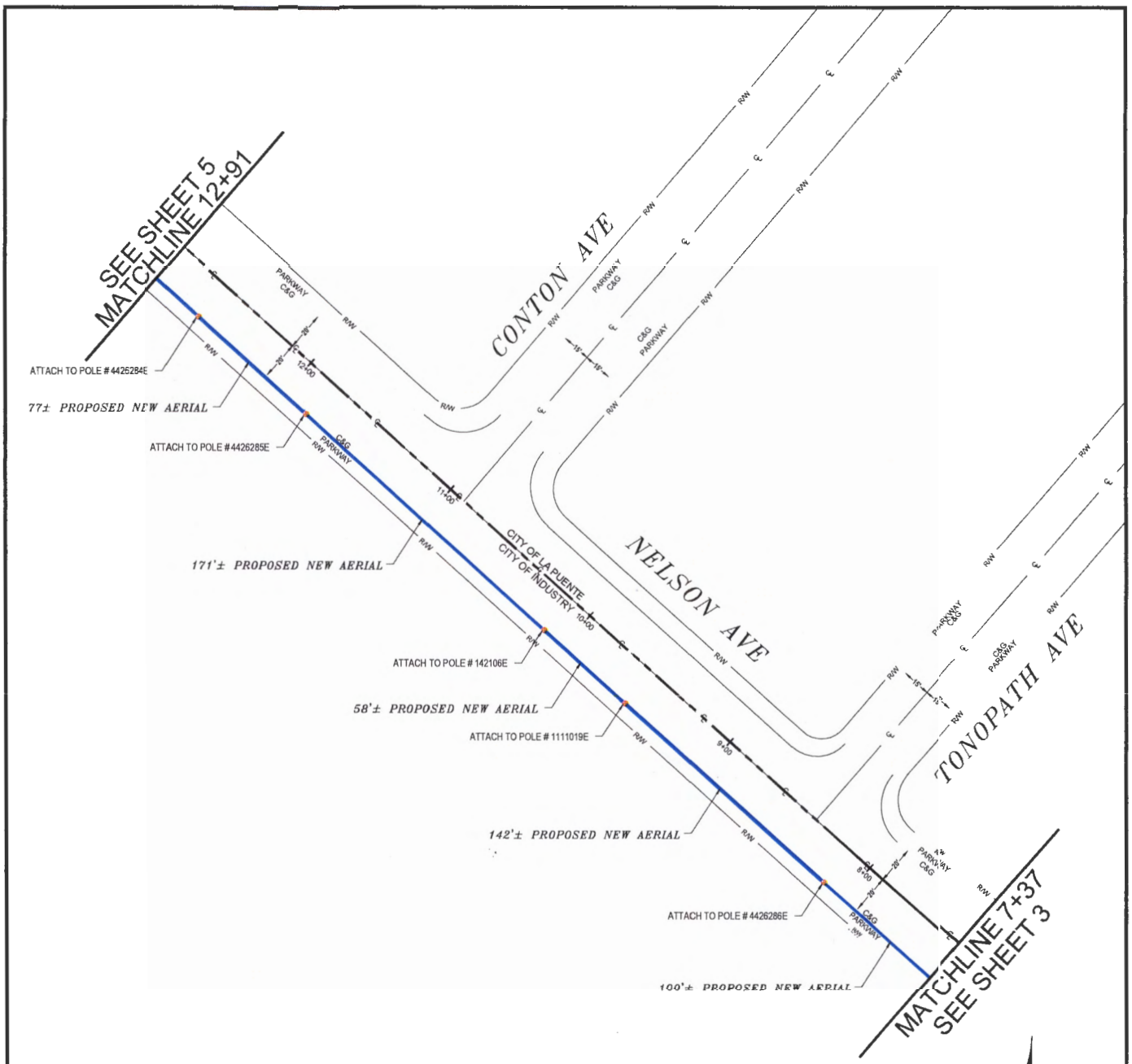
PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-B01-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
3 OF 12



SCALE 1:80

BILL OF MATERIAL			
NO.	MATERIAL	QUANTITY	FOOTAGE
1	PROP. AERIAL F.O.C	—	548' LF

sunesys
|| Fiber.Faster. ||

DESIGNED BY.....

KB ENGINEERING
10 Corporate Terrace Circle
Ste 350 Corona, CA 92879
WWW.KBENG.NET
Tel: 951-808-9301
Fax: 951-808-9313

CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: SUNSET BLVD & NELSON AVE

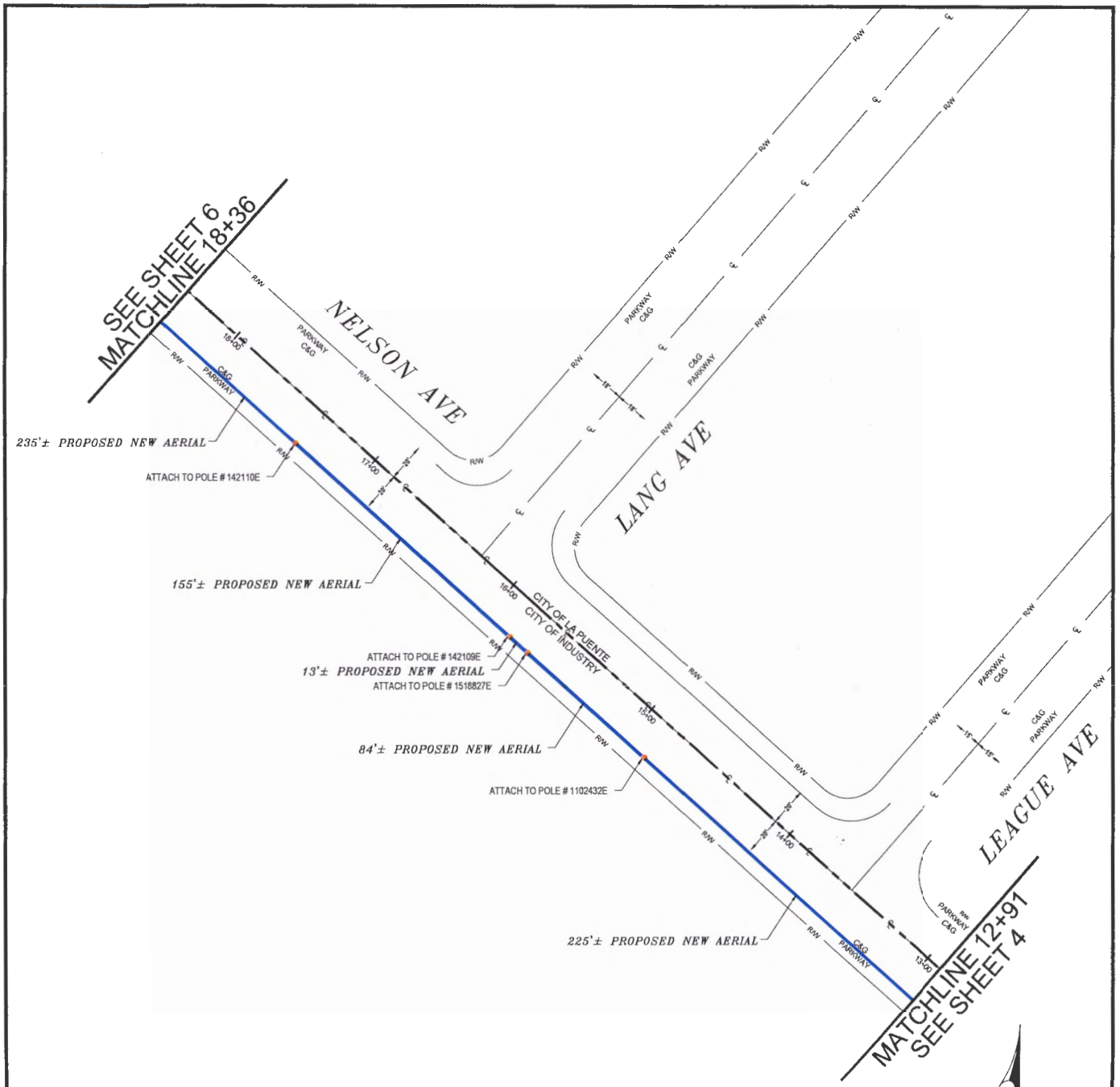
PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-B01-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
4 OF 12



SCALE 1:80

BILL OF MATERIAL

NO.	MATERIAL	QUANTITY	FOOTAGE
1	PROP. AERIAL F.O.C	—	712' LF

sunesys
|| Fiber.Faster. ||

DESIGNED BY.....

KB ENGINEERING

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CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: SUNSET BLVD & NELSON AVE

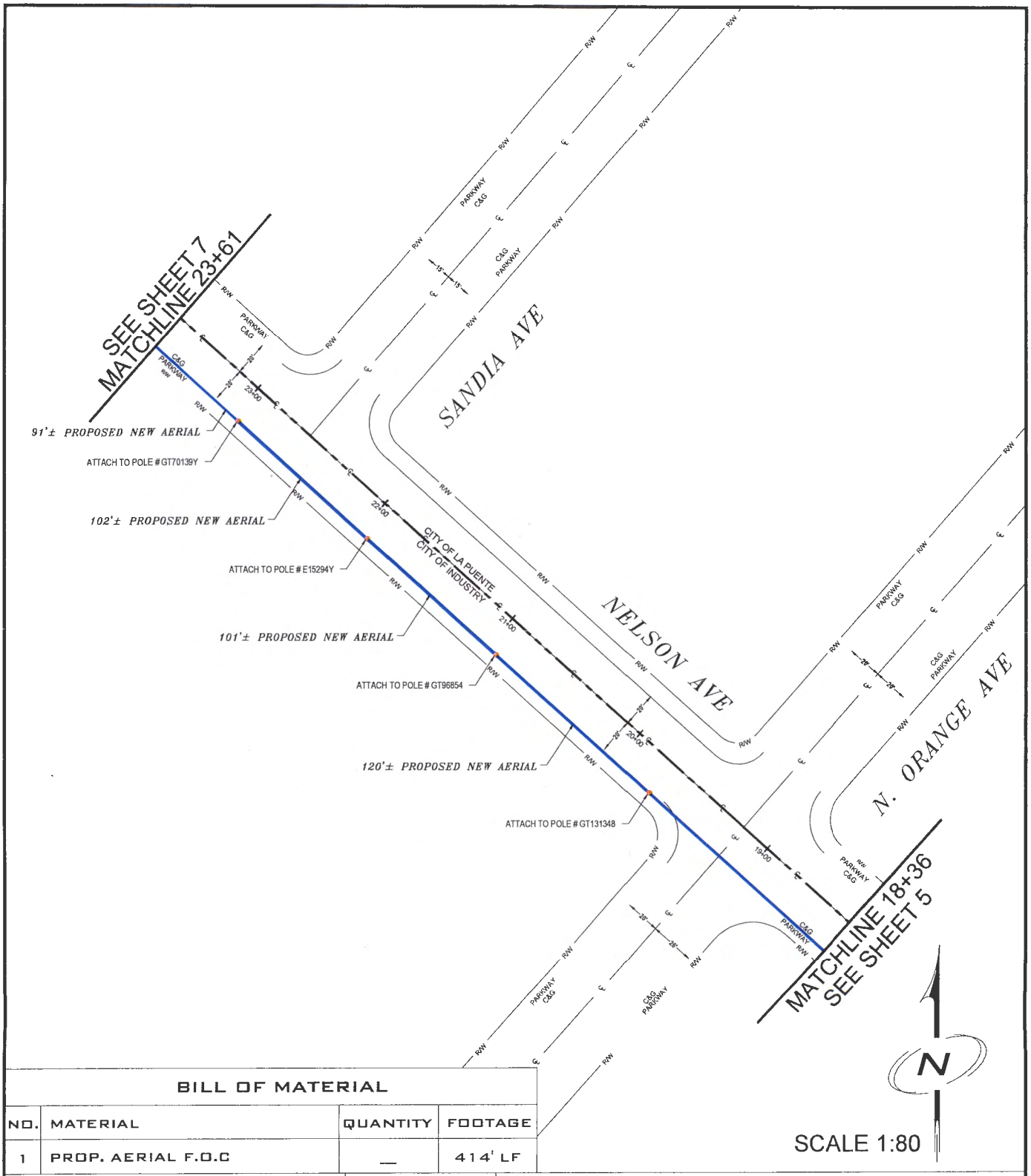
PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-B01-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
5 OF 12



BILL OF MATERIAL

NO.	MATERIAL	QUANTITY	FOOTAGE
1	PROP. AERIAL F.O.C	__	414' LF

sunesys
|| Fiber.Faster. ||

DESIGNED BY.....

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CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NO. _____
PLAN NO. _____

PROJECT NAME: BASSETT USD

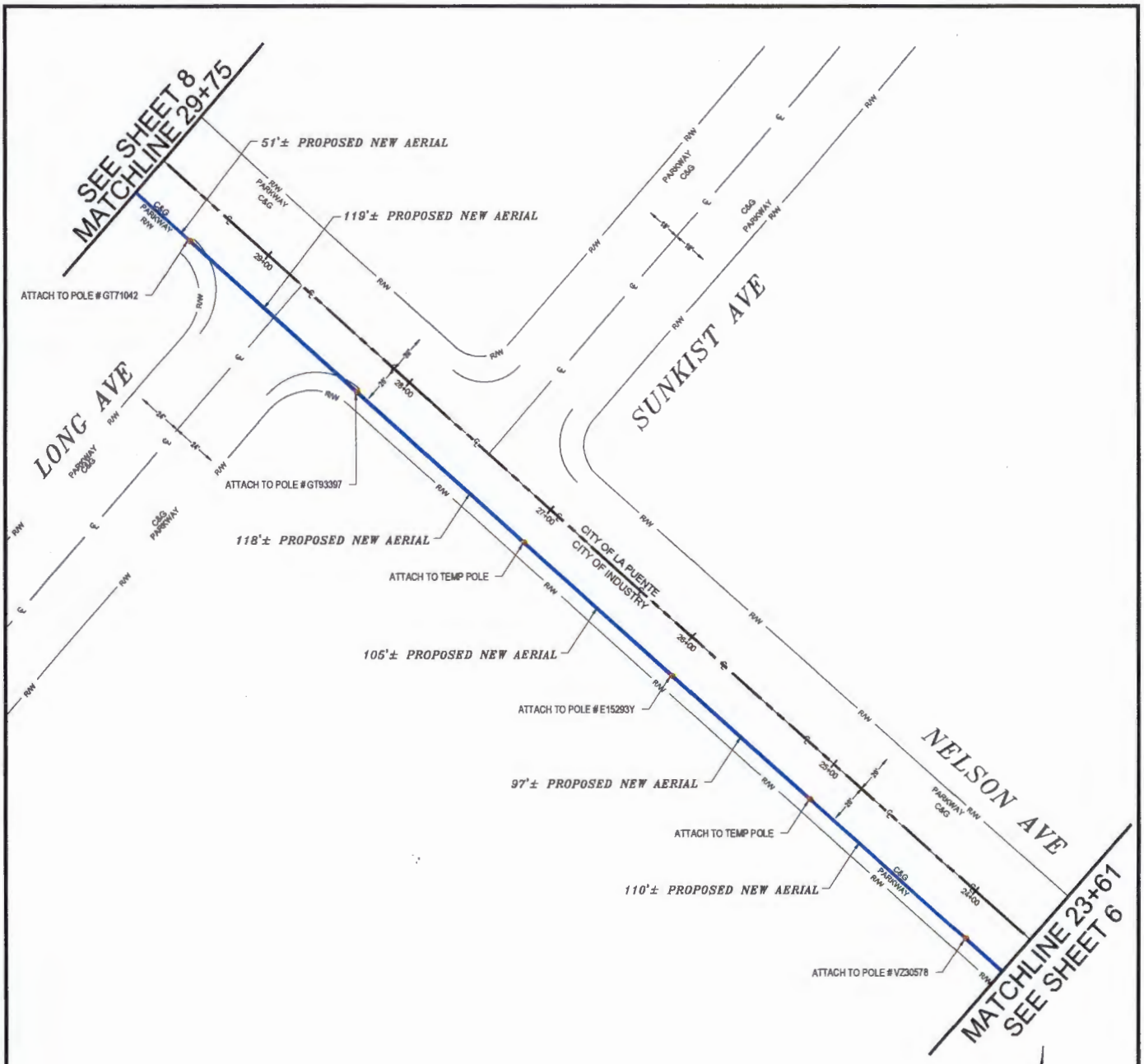
LOCATION: SUNSET BLVD & NELSON AVE

PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-801-IND

SYSTEM EXHIBIT

SHEET NO.
6 OF 12



SCALE 1:80

BILL OF MATERIAL

NO.	MATERIAL	QUANTITY	FOOTAGE
1	PROP. AERIAL F.O.C	—	600' LF

sunesys
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CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: SUNSET BLVD & NELSON AVE

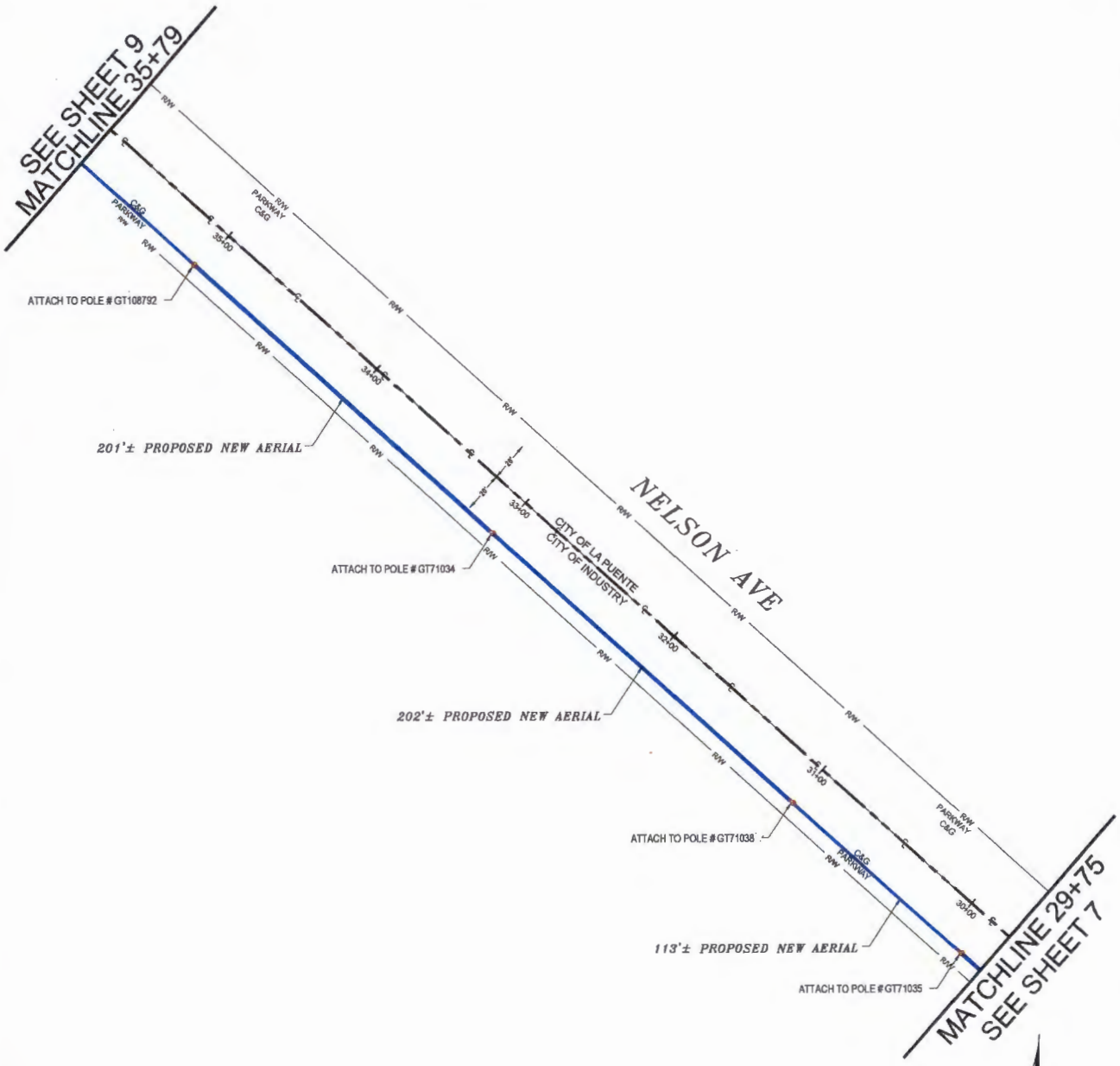
PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-801-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
7 OF 12



N

SCALE 1:80

BILL OF MATERIAL			
NO.	MATERIAL	QUANTITY	FOOTAGE
1	PROP. AERIAL F.O.C	—	516' LF

sunesys
|| Fiber.Faster. ||

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CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires June 30, 2017
CIV IL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: SUNSET BLVD & NELSON AVE

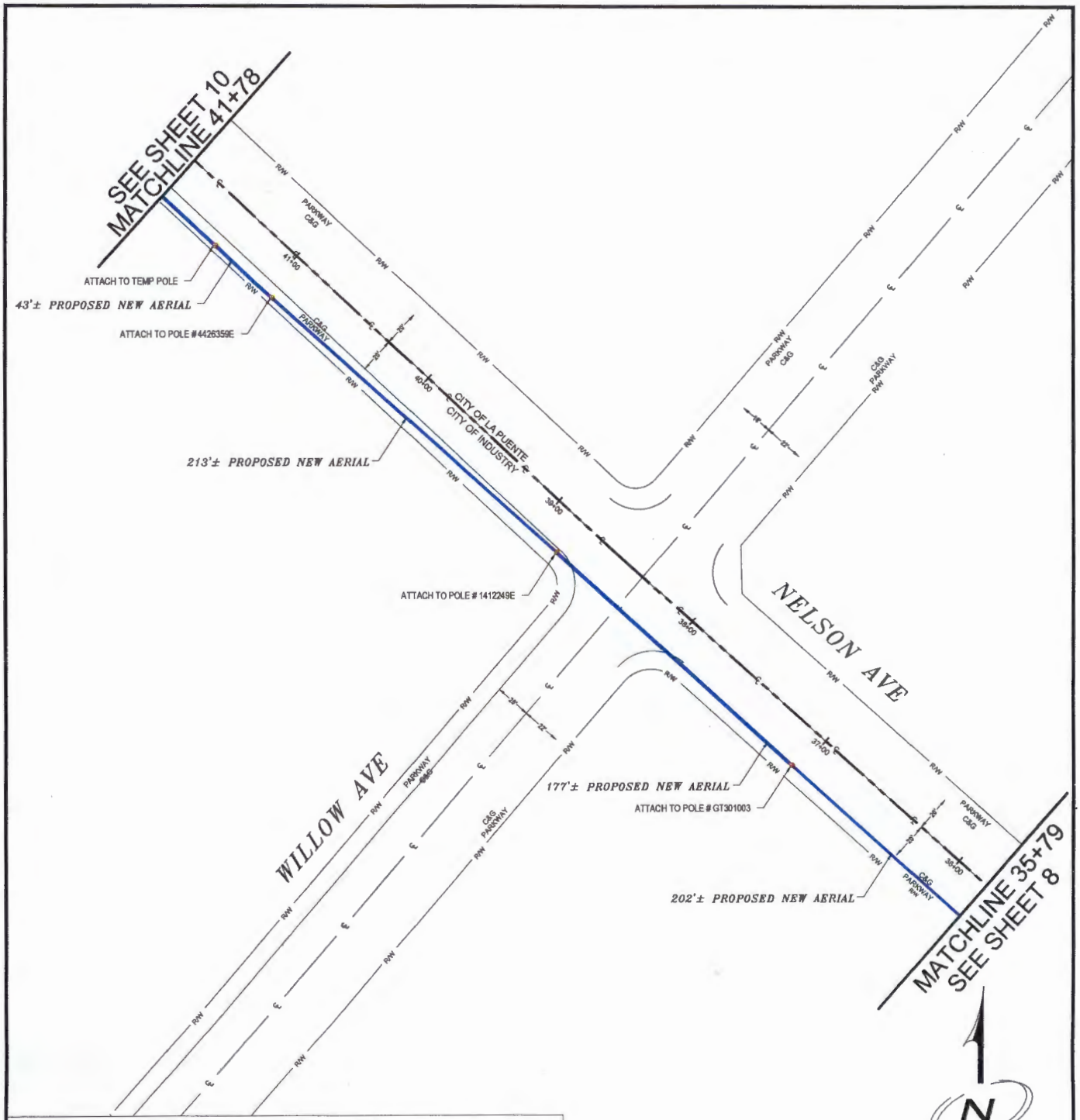
PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-B01-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
8 OF 12



SCALE 1:80

BILL OF MATERIAL

NO.	MATERIAL	QUANTITY	FOOTAGE
1	PROP. AERIAL F.O.C	—	635' LF

sunesys
|| Fiber.Faster. ||

DESIGNED BY.....

KB ENGINEERING

WWW.KBENG.NET

CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires
June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: SUNSET BLVD & NELSON AVE

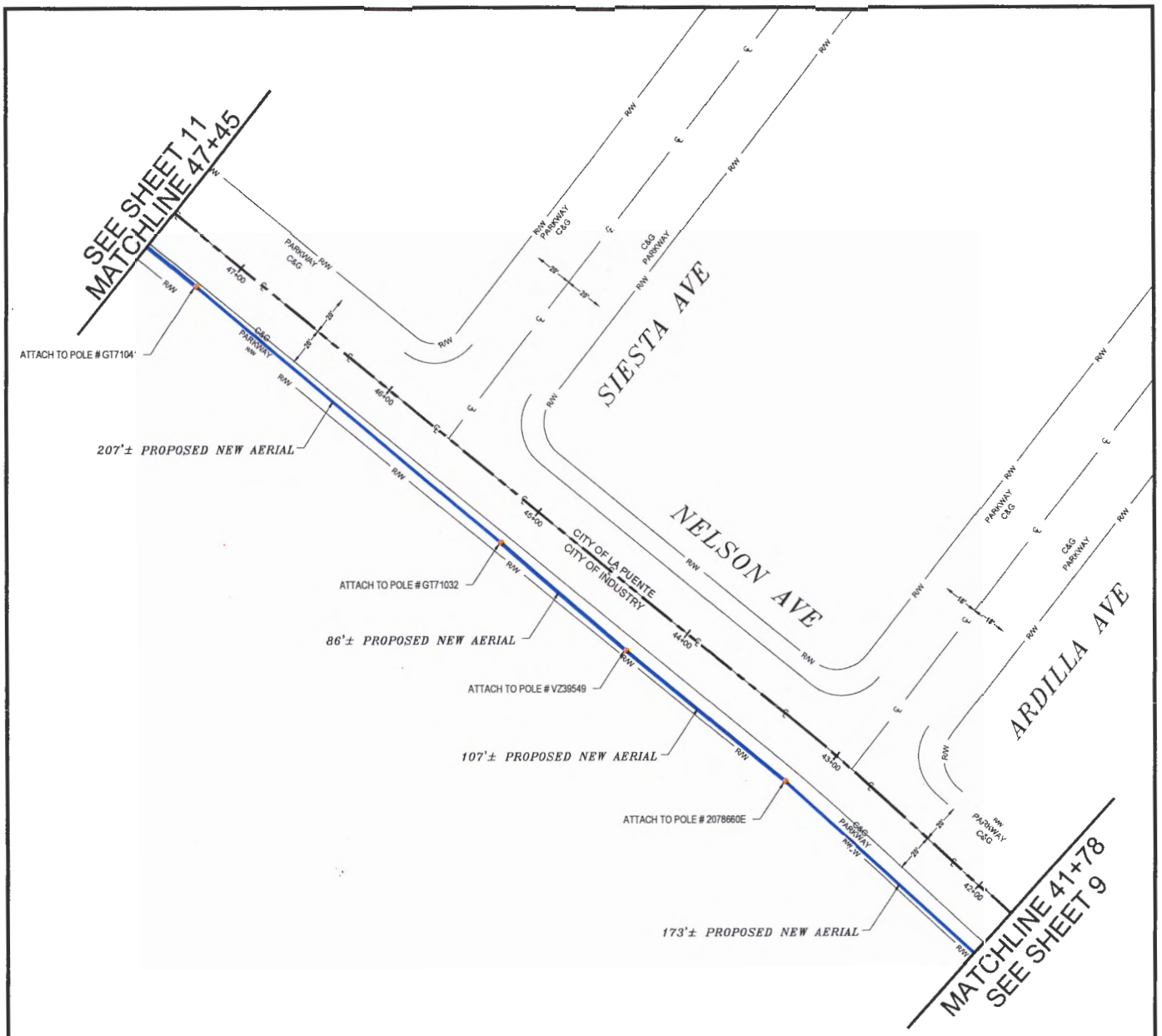
PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-B01-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
9 OF 12



N

SCALE 1:80

BILL OF MATERIAL

NO.	MATERIAL	QUANTITY	FOOTAGE
1	PROP. AERIAL F.O.C	—	573' LF

sunesys
|| Fiber.Faster. ||

DESIGNED BY.....

KB ENGINEERING

WWW.KBENG.NET

CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires
June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: SUNSET BLVD & NELSON AVE

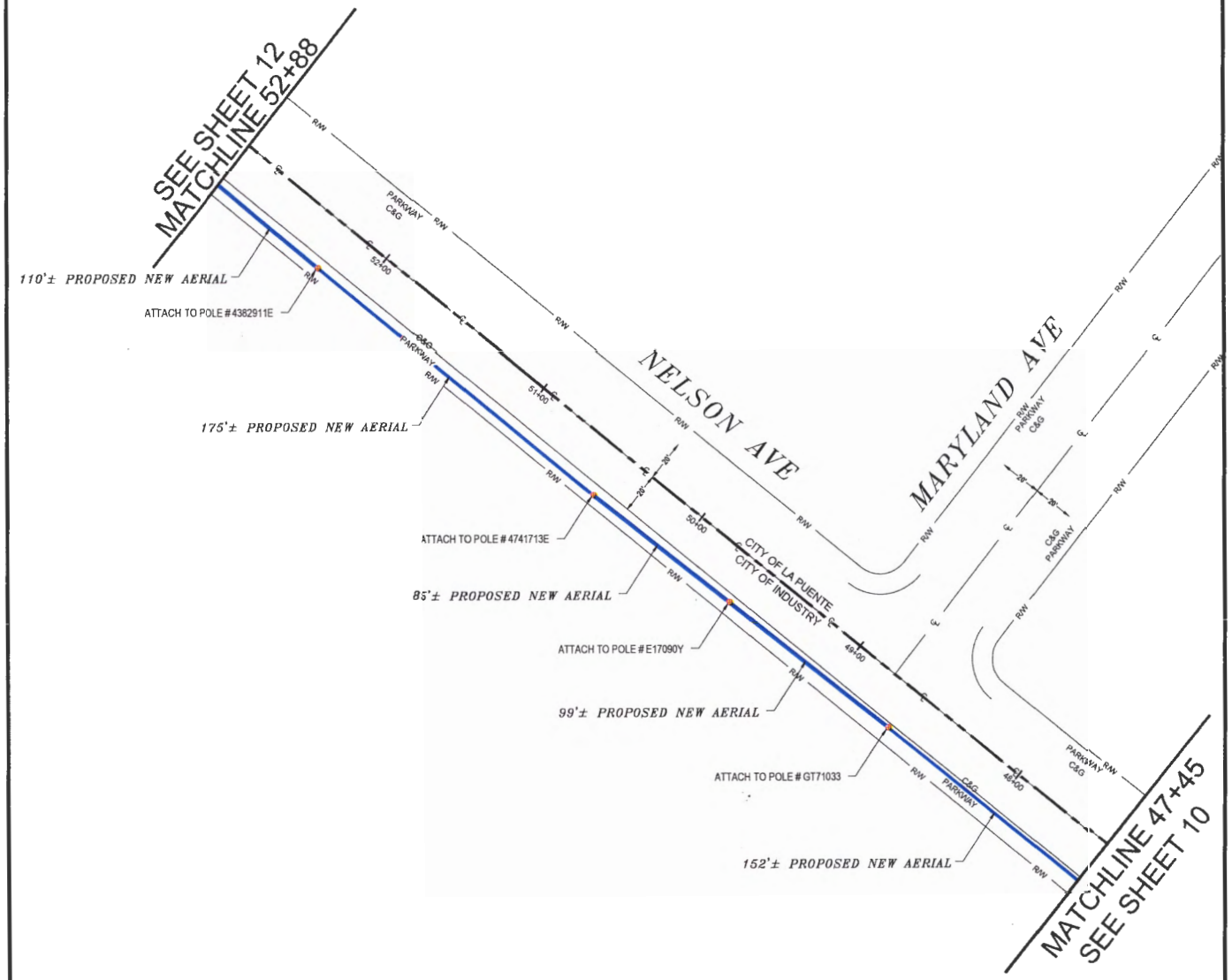
PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-801-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
10 OF 12



N

SCALE 1:80

BILL OF MATERIAL			
NO.	MATERIAL	QUANTITY	FOOTAGE
1	PROP. AERIAL F.O.C	—	621' LF

sunesys
|| Fiber.Faster. ||

DESIGNED BY.....

KB ENGINEERING

WWW.KBENG.NET

CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires
June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: SUNSET BLVD & NELSON AVE

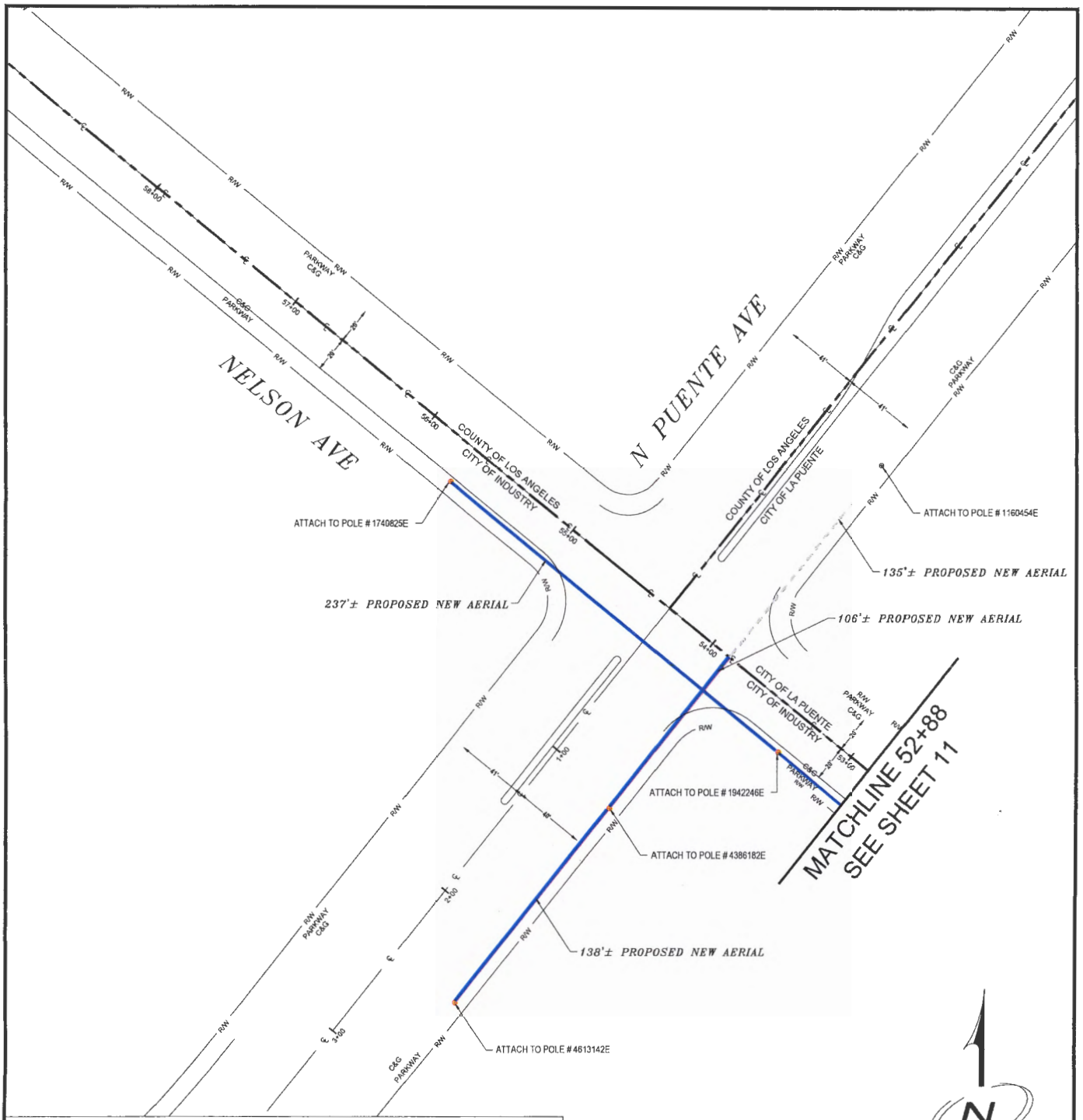
PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-B01-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
11 OF 12



BILL OF MATERIAL

NO.	MATERIAL	QUANTITY	FOOTAGE
1	PROP. AERIAL F.O.C	—	481' LF

SCALE 1:80

sunesys
|| Fiber.Faster. ||

DESIGNED BY.....

KB ENGINEERING
80 Corporate Terrace Circle
Ste 200, Corona, CA 92879
WWW.KBENG.NET
Tel. 951-809-9501
Fax. 951-809-9515

CONSULTANT ENGINEER INFORMATION

REGISTERED PROFESSIONAL ENGINEER
GIL ZULUETA MENDOZA
No. 53454
Expires
June 30, 2017
CIVIL
STATE OF CALIFORNIA

PROJECT NAME: BASSETT USD

LOCATION: SUNSET BLVD & NELSON AVE

PROJECT DESCRIPTION: RISER DOWN POLE #2033294E AND CORE INTO EXISTING TELEPHONE MANHOLE ON SUNSET BLVD

930-BASSE-801-IND

PROJECT NO. _____
PLAN NO. _____

SYSTEM EXHIBIT

SHEET NO.
12 OF 12

CITY COUNCIL

ITEM NO. 6.13

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor Radecki and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Clement N. Calvillo, City Engineer, CNC Engineering
Joshua Nelson, Deputy City Engineer, CNC Engineering
James Cramsie, Project Manager, CNC Engineering

Date: December 8, 2016

SUBJECT: Supplemental Agreement with Union Pacific Railroad to an Agreement Dated August 10, 1961 to allow the Installation of Two PVC Conduits - JN-7446

In support of the Upper San Gabriel River (USGR) Coordinated Integrated Monitoring Program (CIMP), monitoring equipment is to be installed near an existing storm drain manhole that is located within an existing city easement that is within the Union Pacific Rail Road (UPRR) Right-of-Way (R/W) near Cloverleaf Drive, at the western end of the City. An underground conduit is needed to connect the existing manhole with the monitoring equipment, which will be located outside of the UPRR R/W. The conduit will need to cross through the existing UPRR R/W, therefore, an amendment to the existing Agreement between the City of Industry and UPRR was required. The Agreement is for the permanent installation of the conduit, which will be owned and maintained by the City. The monitoring equipment will be maintained and owned by others.

The fee associated with this Agreement has already been paid for by the consultant hired by the USGR Enhanced Watershed Management Program (EWMP) group, which the City of Industry is a member.

The attached Agreement has been reviewed by legal counsel and has been deemed acceptable. Staff recommends that the City Council approve the execution of the Supplemental Agreement.

Exhibit:

A. Supplemental Agreement between Union Pacific Railroad Company and the City of Industry

---

PJP/CC/JN/JC:af

EXHIBIT A

Supplemental Agreement between Union Pacific Railroad Company and the City of Industry

[Attached]

SUPPAGR.DOC 980220
Form Approved, AVP-Law

Audit: 282805
Folder: 03012-73

SUPPLEMENTAL AGREEMENT

THIS SUPPLEMENTAL AGREEMENT is entered into on the _____ day of _____, 20___, between **UNION PACIFIC RAILROAD COMPANY** ("Licensor") and **CITY OF INDUSTRY**, whose address is 15625 East Stafford Street #100, City Of Industry, California 91744 ("Grantee").

RECITALS:

By instrument dated August 10, 1961, Railroad and Grantee, or their predecessors in interest, entered into an agreement ("Basic Agreement"), identified as Audit No. 282805, at CITY OF INDUSTRY, CALIFORNIA. The Grantee now desires to install two (2) parallel 1.5 inch schedule 80 PVC conduits for the purpose of collecting storm water samples for a storm water quality program done in conjunction with Los Angeles County Department of Public Works. Installation of the conduits is via open trench to connect to existing manhole located 18.3 feet from the centerline of the tracks. Conduits will require a minimum of 2 feet of cover.

AGREEMENT:

NOW, THEREFORE, IT IS AGREED by and between the parties hereto as follows:

Article 1. **ADDITIONAL PRINT.**

The print dated September 23, 2016, attached hereto as Exhibit 'A', shall be and hereby is added to the Basic Agreement, and from and after the effective date herein whenever the term Pipeline is used in the Basic Agreement, or any amendment or supplement thereto (if any), such reference shall be deemed to refer to the Pipeline as shown on Exhibit 'A', hereto attached.

Article 2. **LICENSE FEE.**

Upon execution and delivery of this Supplemental Agreement, the Grantee shall pay to the Licensor a one-time fee of **One Thousand Dollars ($1,000.00)**.

Article 3. **EFFECTIVE DATE.**

This Supplemental Agreement shall be effective as of October 31, 2016.

Article 4. **AGREEMENT SUPPLEMENT.**

Nothing in this Supplemental Agreement shall be construed as amending or modifying the Basic Agreement unless specifically provided herein.

IN WITNESS WHEREOF, the parties have executed this Supplemental Agreement as of the day and year first written.

UNION PACIFIC RAILROAD COMPANY

By: _____
Valerie Harrill
Asst. Manager

CITY OF INDUSTRY

By: _____

Name Printed: _____

Title: _____

LEGEND:

PIPELINE ENCROACHMENT

EXISTING MANHOLE

EXISTING PIPELINE

UPRRCO. R/W OUTLINED

CADD FILENAME	0301273.dgn
SCAN FILENAME	0301273_CA124X01.tif

NOTE: BEFORE YOU BEGIN ANY WORK, SEE AGREEMENT FOR FIBER OPTIC PROVISIONS.

EXHIBIT "A"

UNION PACIFIC RAILROAD COMPANY

CITY OF INDUSTRY, LOS ANGELES COUNTY, CA

M.P. 497.04 - ALHAMBRA SUB

TO ACCOMPANY AGREEMENT WITH
CITY OF INDUSTRY
SP CA V-124-15 / 1
SCALE: 1" = 100'

OFFICE OF REAL ESTATE
OMAHA, NEBRASKA DATE: 9/23/2016

AJM FILE: 3012-73

CITY COUNCIL

ITEM NO. 7.1

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor and Members of the City Council

From: Paul J. Philips, City Manager

Staff: Troy Helling, Senior Planner
Aaron Lobliner, Contract Associate Planner

Date: December 8, 2016

Subject: Tentative Parcel Map 350, Development Plan 16-3 and Zone Exception 16-1 – 751 Echelon Avenue

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Overview

Section 17.04.120 of the Municipal Code ("Code") requires that when separate applications for the same project involve final decisions by the Planning Commission and City Council, all applications first be submitted to the Planning Commission for review and recommendation and then to the City Council for a final decision. This project involves the following three applications submitted by Donlon Builders.

- Consideration of Tentative Parcel Map 350, to subdivide an existing 13.4. acre parcel into seven parcels, in accordance with Section 16.12.030 of the Code.

- Consideration of Zone Exception 16-1, to reduce the front setback requirement on Loukelton Street from 30'-0" from the curb to 15'-0" from the curb, in accordance with Section 17.10.020 of the Code.

- Consideration of Development Plan 16-3, to develop seven new industrial warehouse buildings totaling 246,543 square feet in the "I" Industrial Zone, in accordance with Section 17.36.020 of the City's Code.

The Planning Commission recommended City Council approval of the a Mitigated Negative Declaration, a Mitigation Monitoring and Reporting Program, Tentative Parcel Map 350, Zone Exception 16-1 and Development Plan No. 16-3 at its October 13, 2016 meeting.

Location and Surroundings

As shown on the location map (Attachment 1), the project site is located on the south side Loukelton Street just west of Echelon Street. The site is 13.4 acres, totaling 585,289 square feet. The Los Angeles County Tax Assessor Parcel Number (APN) is 8250-001-020. Educational uses are located to the west and south, residential uses are located to the east and to the west beyond the track and athletic field, and warehousing and industrial uses are located to the north across Loukelton Street. The existing house on the project site was previously used for a radio station, and will be demolished as part of the project. In addition, the radio antennas have already been removed from the property.

Project Description

Tentative Parcel Map 350

Tentative Parcel Map 350 is to subdivide an existing 13.4 acre parcel into seven parcels (Attachment 2). Parcel 1 will be a 1.66 acre lot (72,139 square feet). Parcel 2 will be a 1.43 acre lot (62,160 square feet). Parcel 3 will be a 1.39 acre lot (60,472 square feet). Parcel 4 will be a 1.98 acre lot (86,110 square feet). Parcel 5 will be a 2.29 acre lot (99,535 square feet). Parcel 6 will be a 1.91 acre lot (83,311 square feet) and parcel 7 will be a 1.86 acre lot (81,173 square feet). The map also includes the dedication of a new public street. Each parcel meets minimum lot size, minimum frontage, access and drainage requirements and will accommodate one industrial warehouse building.

Development Plan 15-12

Development Plan application 16-3 is a proposal to construct seven industrial warehouse buildings with a total of 246,543 square feet as shown on (Attachment 3).

Building A, Parcel 1

As shown in the site plan (Attachment 3), building A on parcel 1 will be 34,547 square feet on a 1.66 acre lot (72,139 square feet). The building will include office area in the mezzanine that will comprise 3,072 square feet, not exceeding the maximum 33% of the total square footage of the building. The loading area for the building will be located on the south side and will be screened from Loukelton Street and New Echelon Street by the building, an eight foot tall screen wall, and by new landscaping. There will be a six foot tall block wall on the west property line. There will be two dock-high loading bays and one grade-level loading doors in the loading area. The building will be accessed from New Echelon Street by one 28 foot wide driveway. Building A requires 62 parking spaces and 55 spaces are provided. The deficiency in parking is within 10% of the total required and therefore qualifies for a minor deviation. The parking is provided as follows:

- 48 standard spaces (9'x19');
- 8 compact spaces (8'x16'); and
- 3 ADA accessible spaces

There will be a total of 11,378 square feet of landscaping (16 Percent) for parcel 1. A trash enclosure containing a trash bin and a recycling bin would be provided in the parking and maneuvering area adjacent to the new building.

As shown on the elevations (Attachment 4), building A will be 32 feet tall and the elevations will include wall articulation to improve the exterior design, and will incorporate glazing to differentiate the office area from the warehouse area.

Building B, Parcel 2

As shown in the site plan (Attachment 3), building B on parcel 2 will be 29,086 square feet on a 1.43 acre lot (62,160 square feet). The building will include office area in the mezzanine that will comprise 2,521 square feet, not exceeding the maximum 33% of the total square footage of the building. The loading area for the building on building B will be located on the east side of the building and will be screened from New Echelon Street by an eight foot tall screen wall and new landscaping. There will be a six foot tall block wall on the west property line. There will be two dock-high loading bays and one set of grade-level loading doors in the loading area. The building will be accessed from New Echelon Street by one 28 foot wide driveway on the east side of the property that is a combined driveway with a similar 28 foot wide driveway for building A. Building B requires 55 parking spaces and 50 spaces are provided. The deficiency in parking is 10% of the total required and therefore qualifies for a minor deviation. The parking is provided as follows:

- 44 standard spaces (9'x19')
- 6 compact spaces (8'x16'); and
- 3 ADA accessible spaces

There will be a total of 7,386 square feet of landscaping (12%) for parcel 2. A trash enclosure containing a trash bin and a recycling bin would be provided in the parking area adjacent to the new building, on the northern elevation.

As shown on the elevations (Attachment 5), building B will be 34 feet tall and the elevations will include wall articulation to improve the exterior design, and will incorporate glazing to differentiate office area from the warehouse area.

Building C, Parcel 3

As shown in the site plan (Attachment 3), building C on parcel 3 will be 27,438 square feet on a 1.39 acre lot (60,472 square feet). The building will include office area in the mezzanine that will comprise 2,521 square feet, not exceeding the maximum 33% of the total square footage of the building. The loading area for the building on parcel C will be located on the south side of the building and will be screened from New Echelon Street by an eight foot tall screen wall and new landscaping. There will be a six foot tall block wall on the west property line. There will be two dock-high loading bays and one grade-level loading doors in the loading area. The building will be primarily accessed from New Echelon Street by one 26 foot wide driveway on the southern side of the lot, secondary access will come via a 28 driveway on the north side of the lot that connects to a similar driveway from Parcel B. Parcel C requires 53 parking spaces and 47 spaces are provided. The deficiency in parking is within 10% of the total required and therefore qualifies for a minor deviation. The parking is provided as follows:

- 41 standard spaces (9'x19');
- 6 compact spaces (8'x16'); and
- 3 ADA accessible spaces

There will be a total of 7,176 square feet of landscaping (12%) for Parcel 3. A trash enclosure containing a trash bin and a recycling bin would be provided in the parking and maneuvering area adjacent to the new building.

As shown on the elevations (Attachment 6), building C will be 34 feet tall and the elevations will include wall articulation to improve the exterior design, and will incorporate glazing to differentiate office area from the warehouse area.

Building D, Parcel 4

As shown in the site plan (Attachment 3), building D on parcel 4 will be 41,218 square feet on a 1.98 acre lot (86,110 square feet). The building will include office area in the mezzanine that will comprise 4,000 square feet, not exceeding the maximum 33% of the total square footage of the building. The loading area for the building for building D will be located on the north side of the building and will be screened from New Echelon Street by recessed articulation and by new landscaping. There will be a six foot tall block wall on the west and south property line. There will be four dock-high loading bays in the loading area, a single grade level loading door will be located at the southwest corner of the building. The building will be accessed from New Echelon Street by one 26 foot wide driveway. This driveway is adjacent to a similar driveway on parcel 3, that when combined is 52 feet wide. Building D requires 71 parking spaces and 65 spaces are provided. The deficiency in parking is within 10% of the total required and therefore qualifies for a minor deviation. The parking is provided as follows:

- 54 standard spaces (9'x19');

- 11 compact spaces (8'x16'); and
- 3 ADA accessible spaces

There will be a total of 9,402 square feet of landscaping (11%) for parcel 4. This is short of the amount required by code, however the deficiency qualifies for a minor deviation. A trash enclosure containing a trash bin and a recycling bin would be provided in the parking and maneuvering area adjacent to the new building.

As shown on the elevations (Attachment 7), the building D will be 34 feet tall and the elevations will include wall articulation to improve the exterior design, and will incorporate glazing to differentiate office area from the warehouse area.

Building E, Parcel 7

As shown in the site plan (Attachment 3), building E on parcel 7 will be 34,522 square feet on a 1.86 acre lot (81,173 square feet). The building will include office area in the mezzanine that will comprise 3,072 square feet, not exceeding the maximum 33% of the total square footage of the building. The loading area for the building on building E will be located on the south side of the building and will be screened from New Echelon Street an eight foot tall wall and new landscaping. In addition, there will be a ten foot tall block wall on the east property line adjacent to the residential uses along with a ten foot landscape buffer area. There will be four dock-high loading bays in the loading area on the southwest corner of the building and one grade-level loading door on the southeast corner of the building. The loading docks were placed on the southwest corner of the building because staff and the applicant wanted them as far as possible from the existing residences to the east to make sure that the loading dock area is shielded with the building. The building will be accessed from New Echelon and Loukelton Streets by three driveways, one 30 foot and one 39 foot driveway accessing New Echelon, one 28 foot driveway accessing Loukelton Street. Parcel E requires 62 parking spaces and 55 spaces are provided. The deficiency in parking is within 10% of the total required and therefore qualifies for a minor deviation. The parking is provided as follows:

- 49 standard spaces (9'x19');
- 7 compact spaces (8'x16'); and
- 3 ADA accessible spaces

There will be a total of 12,658 square feet of landscaping (16%) for parcel 7. A trash enclosure containing a trash bin and a recycling bin would be provided in the parking and maneuvering area adjacent to the new building.

As shown on the elevations (Attachment 8), building E will be 38 feet tall and the elevations will include wall articulation to improve the exterior design, and will incorporate glazing to differentiate office area from the warehouse area.

Building F, Parcel 6

As shown in the site plan (Attachment 3), building F on parcel 6 will be 36,566 square feet on a 1.91 acre lot (83,311 square feet). The building will include office area in the mezzanine that will comprise 3,559 square feet, not exceeding the maximum 33% of the total square footage of the building. The loading area for the building on building F will be located on the south side of the building and will be screened from New Echelon Street by an eight foot screen wall and new landscaping. In addition, there will be a ten foot tall block wall on the east property line adjacent to the residential uses along with a ten foot landscape buffer area. There will be four dock-high loading bays in the loading area at the southwest corner of the building and one grade-level loading door on the southeast corner of the building. The loading docks were placed on the southwest corner of the building because staff and the

applicant wanted them as far as possible from the existing residences to the east to make sure that the loading dock area is shielded with the building. The building will be accessed from New Echelon Street by one 33 foot wide driveway. Building F requires 65 parking spaces and 63 spaces are provided. The deficiency in parking is within 10% of the total required and therefore qualifies for a minor deviation. The parking is provided as follows:

- 56 standard spaces (9'x19')
- 7 compact spaces (8'x16'); and
- 3 ADA accessible spaces

There will be a total of 12,044 square feet of landscaping (11%) for parcel 6. This is short of the amount required by code, however the deficiency qualifies for a minor deviation. A trash enclosure containing a trash bin and a recycling bin would be provided in the parking and maneuvering area adjacent to the new building.

As shown on the elevations (Attachment 9), building F will be 38 feet tall and the elevations will include wall articulation to improve the exterior design, and will incorporate glazing to differentiate office area from the warehouse area.

Building G, Parcel 5

As shown in the site plan (Attachment 3), building G on parcel 5 will be 43,166 square feet on a 2.29 acre lot (99,535 square feet). The building will include office area in the mezzanine that will comprise 4,000 square feet, not exceeding the maximum 33% of the total square footage of the building. The loading area for the building on parcel G will be located on the west side of the building and will be screened from New Echelon Street by the recessed articulation of the building and by new landscaping. In addition, there will be a ten foot tall block wall on the east property line adjacent to the residential uses along with a ten foot landscape buffer area. A six foot tall block wall will be along the south property line. There will be five dock-high loading bays in the loading area and one grade-level loading door on the southwest corner of the building. The loading docks were placed on the southwest corner of the building because staff and the applicant wanted them as far as possible from the existing residences to the east to make sure that the loading dock area is shielded by the building. The building will be accessed from New Echelon Street by one 67 foot wide driveway. Parcel G requires 74 parking spaces and 73 spaces are provided. The deficiency in parking is within 10% of the total required and therefore qualifies for a minor deviation. The parking is provided as follows:

- 67 standard spaces (9'x19');
- 6 compact spaces (8'x16'); and
- 3 ADA accessible spaces

There will be a total of 11,767 square feet of landscaping (12%) for parcel 5. A trash enclosure containing a trash bin and a recycling bin would be provided in the parking and maneuvering area adjacent to the new building.

As shown on the elevations (Attachment 10), building G will be 38 feet tall and the elevations will include wall articulation to improve the exterior design, and will incorporate glazing to differentiate office area from the warehouse area.

Staff Analysis

Tentative Parcel Map

The Planning Commission is the recommending body, and the City Council is the final approval body for Tentative Parcel Maps. The applicant is proposing to subdivide the current single lot into seven lots, as well as a new roadway in New Echelon Street.

Staff recommends approval of Tentative Parcel Map 350 based on the following findings:

- The map is consistent with the General Plan and any applicable specific plans. The proposed subdivision is located in an area designated as Employment in the General Plan, which allows for industrial uses (e.g. manufacturing, distribution, assembly), such as stand-alone Industrial warehouse buildings, when zoned. In this case, the site is zoned Industrial and a stand-alone industrial warehouse building is permitted and conforms to the Employment land use designation. Policy LU1-1 of the General Plan states that the City accommodates business and employment uses as the primary land use. The proposed subdivision would allow seven stand-alone industrial warehouse buildings in keeping with surrounding uses and in accordance with the direction of the General Plan. The project site is not located within an adopted specific plan.

- The design or improvement is consistent with the General Plan and any applicable specific plans. The proposed subdivision complies with the minimum size, frontage, access, and drainage requirements addressed in Section 16.10 of the Municipal Code and the development standards in Section 17.36 of the Municipal Code. The project site is not located within an adopted specific plan.
- The site is physically suitable for the type of development. The project site is flat, was previously graded, and there are no known physical or environmental hazards.
- The site is physically suitable for the proposed density of development. The proposed subdivision would result in seven parcels that exceed minimum lot area and width requirements. The proposed industrial buildings comply with building coverage requirements.

- The design of the proposed improvements will not cause substantial environmental damage or substantially and unavoidable injury to fish, wildlife or their habitat. As documented in the Mitigated Negative Declaration ("MND"), the development on an existing lot will not result in significant environmental impacts to fish, wildlife or their habitat.

- The design or improvements will not cause serious public health problems. As documented in the MND, the proposed project complies with development standards, complies with access and circulation requirements, does not alter emergency response, is not located in flood zones, near active earthquake faults, will not be used to store or produce hazardous materials, and will comply with applicable building and fire codes.
- The design or improvement will not conflict with easements. All easements are identified on Tentative Parcel Map 350 and the proposed improvements will not conflict with, be located on, or alter the easements.
- The subdivision will provide, to the extent feasible, for future passive or natural heating or cooling opportunities. In terms of passive or natural heating opportunities, the proposed subdivision would accommodate a structure that can be oriented in an alignment to allow a southern exposure. In terms of passive or natural cooling opportunities, the proposed subdivision is located in an area where the prevailing winds are from the west and is

configured to allow a structure to be oriented such that it may take advantage of prevailing breezes. The site of the proposed subdivision is a flat and previously graded area and conforms to the allowable densities and lot area that may be occupied by a building. The proposed office building will comply with the requirements of the California Green Code, which stipulates minimum insulation standards, energy efficient lighting and appliances, and other provisions intended to improve energy efficiency and reduce greenhouse gases and water consumption.

- The subdivision will not violate the requirements of the Los Angeles Regional Water Quality Control Board because a preliminary Low Impact Development (LID) Plan has been reviewed by the City Engineer and found in compliance with the provisions of Chapter 13.16, Storm water and Urban Runoff Pollution Control. Prior to issuance of the grading permit, the final LID must be found to conform to the preliminary LID and approved by the City Engineer. As a condition for issuing a certificate of occupancy or building final, the city, will require facility operators and owners to build all the storm water pollution control BMPs and structural or treatment BMPs that are shown on the approved project storm water mitigation plan and to submit a signed certification statement stating that the site and all structural or treatment control BMPs will be maintained in compliance with the municipal NPDES permit and other applicable regulatory requirements.

- The subdivision is consistent with Section 66412.3 of the Subdivision Map Act regarding the City's share of the regional housing need and that it balances the housing needs of the region against the public service needs of the City's residents and available fiscal and environmental resources because the subdivision is located in the City's Industrial Zone, and is therefore only suitable for industrial development, and no residential development is permitted.

Zone Exception Application

Sections 17.40.020 and 17.40.030 of the Municipal Code allow for the granting of an exception when: 1) it is necessary for the preservation of a substantial property right, 2) it will not be materially detrimental to the public welfare or to the surrounding properties, and 3) if there are practical hardships in the application of the development standards but the spirit of the standards will still be preserved, public safety secured, and substantial justice done. In addition, if there are no protests, an exception may be granted even if it is not necessary for the preservation of a substantial property right.

State Planning and Zoning Law (Section 65906) requires that exceptions be granted only when, because of special circumstances applicable to the property, including size, shape, topography, location or surroundings, the strict application of the zoning ordinance deprives the property of privileges enjoyed by nearby properties in the same zone. State law also requires that any exception not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity. The proposed project would not meet code standards and requires approval of a Zone Exception for the following development standard:

- Section 17.36.070 of the Municipal Code requires a minimum 30 foot setback from all streets. A 15 foot street setback is proposed for building A and building E along Loukelton Street. (Attachment 3).

In regards to the Zone Exception application, Staff recommends that the City Council approve Zone Exception 16-1 based on the following findings:

- Granting the Zone Exception would preserve a substantial property right by allowing a well-designed, marketable, and efficient industrial building while preserving the character

of the adjacent residential uses by screening the loading areas and minimizing noise impacts to the nearby residential uses.

- Staff recommends granting the Zone Exception to provide an additional buffer from the residential uses, located to the east of the project site. The 15 foot front setback for building A and E will not be materially detrimental to public welfare or surrounding properties and will be safe. Because of the proximity of the residential uses to the east of the property, a 15 foot setback on Loukelton Street has helped the applicant provide a ten foot block wall, a ten foot wide landscape buffer and provides larger side setbacks on the east property line.
- The spirit of the City's development standards will be preserved and justice done because the project is designed to be consistent with all of the development standards except the front setback on Loukelton Street. Given the neighboring residential uses, City staff is more concerned with requiring the applicant to build a ten foot tall block wall and a ten foot wide landscape buffer on the eastern property line. City Staff also wanted to maximize the setback of the buildings and requiring that the loading docks be on the west side of buildings E, F and G. The Setback from the east property line for building E is 61 feet, building F is 61 feet and building G is 38 feet.
- Given the location of the surrounding residential uses, the Zone Exception does not represent a grant of special privileges and is necessary to allow normal development enjoyed by other Industrially zoned properties and maintain the character of the nearby residential properties.

Minor Exceptions—Administrative

Section 17.40.040 of the Municipal Code allows the Planning Department to administratively grant a minor exception without a public hearing when the requested deviations are ten percent or less of the standards listed in of Sections 15.32.070 (signs), 16.10.010 (parcel frontage), 16.10.020 (parcel size), and 17.36.060 (development standards). The proposed project includes the following minor exceptions for consideration by the City Council:

- Section 17.36.060.K of the Municipal Code requires that buildings between 25,000 square feet and 100,000 square feet provide 1 space per 500 square feet 50 for the first 25,000 square feet plus one space per 750 square feet of floor area over 25,000 square feet. Based on this formula, Building A requires 62 parking spaces and 55 parking spaces are proposed. Building B requires 55 parking spaces and 49 spaces are provided. Building C requires 53 parking spaces and 47 spaces are provided. Building D requires 71 parking spaces and 63 spaces are provided. Building E requires 62 parking spaces and 55 spaces are provided. Building F requires 65 parking spaces and 58 spaces are provided. Building G requires 74 parking spaces and 66 spaces are provided. There are 45 fewer spaces for all seven buildings than required by the Code, but within the ten percent deviation that can be acted upon administratively by the Planning Department. In working with Staff, the applicant reduced parking in order to maximize the amount of landscaping along the eastern property line to help screen the buildings and loading docks and maximize the separation from nearby residential uses.
- Section 17.36.060.Q of the Municipal Code requires that a minimum of 12 percent of the site be devoted to landscaping. Building D and building F are proposing 11% which is proposed and within the ten percent deviation that can be acted upon administratively by the Planning Department. The goal of the City is to maximize landscaping along the street frontage and in areas clearly visible from public areas. The applicant has located the majority of the required landscaping along the New Echelon Avenue, and Loukalton Street frontages. The applicant also provided a 10 foot landscape buffer along the

eastern property line. Gaining the additional landscaping in areas of the lot that are not visible in order to strictly meet the 12 percent standard was not deemed as critical as maximizing the building setback on the eastern and amount of landscaping along the street frontages and within the ten foot easterly landscape buffer.

In determining if it is appropriate to support a minor exception request, Staff utilized the same type of analysis used in judging an Exception application. Sections 17.40.020 and 17.40.030 of the Municipal Code allow for the granting of an exception when: 1) it is necessary for the preservation of a substantial property right, 2) it will not be materially detrimental to the public welfare or to the surrounding properties, and 3) if there are practical hardships in the application of the development standards but the spirit of the standards will still be preserved, public safety secured, and substantial justice done. In addition, if there are no protests, an exception may be granted even if it is not necessary for the preservation of a substantial property right. State Planning and Zoning Law (Section 65906) requires that exceptions be granted only when, because of special circumstances applicable to the property, including size, shape, topography, location or surroundings, the strict application of the zoning ordinance deprives the property of privileges enjoyed by nearby properties in the same zone. State law also requires that any exception not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity.

Development Plan Application

The proposed development project is consistent with the Zoning ("I" – Industrial) and General Plan (Employment) designations of the site and complies with the following development and design standards in Section 17.36, *Design Review*, of the Industry Municipal Code. Specifically, the project:

- Meets development standards. Chapter 17.36 includes standards regarding building height, lot coverage, and trash/recycling enclosures to which the proposed project complies.
- Meets screening and loading requirements. Section 17.36.060.R requires that loading areas not located at the rear of the building be screened by a minimum eight foot tall wall, landscaping, or the building itself. The loading bays are all shielded by the buildings themselves, new landscaping, or combination thereof.
- Meets building setback standards. Section 17.36.060.L of the Municipal Code requires that all buildings and structures be set back a minimum of 30 feet from the curb. As proposed, two of the buildings will be set back 15 feet from the curb with a zone exception and the other five buildings will be set back at least 51 feet from the curb.
- Meets design guidelines. Sections 17.36.060 A-J of the Municipal Code call for well-designed and coordinated buildings, walls, lighting, and landscaping. The architectural treatment of the building is varied and professional in appearance, with the office areas the prominent architectural feature of each building, and utilizing glazing to differentiate the office area from the rest of the building. The bulk of the landscaping is located in the front between New Echelon Street and the buildings, which will provide a green separation between the street and the facilities.
- Meets vehicular parking requirements. Section 17.36.060.K of the Municipal Code requires that buildings between 25,000 and 100,000 square feet provide 50 parking spaces plus one space per 750 square feet of floor area over 25,000 square feet. Based on this formula, for the entire project, 442 parking spaces are required for the entire site and 410 parking spaces are proposed. This deficiency is within 10% of the required, and therefore qualifies for a minor deviation. In addition, Section 17.36.060 K of the Municipal Code limits the amount of compact parking to 20 percent of the total parking. For the entire project, there are 51 compact spaces (12.43 percent) proposed in compliance with the development standards.

- Meets access requirements. Sections 17.36.060.K and N of the Municipal Code require a minimum driveway and drive-aisle width of 26 feet. All lots are proposed to be accessed by driveways at least 26 feet wide. All drive-aisle widths are proposed to be a minimum of 26 feet wide.
- Meets bicycle-parking requirements. Chapter 17.68 of the Municipal Code requires that the development accommodate four bicycles for the first 50,000 square feet and one bicycle per each additional 50,000 square feet. Based on this formula, parking for four bicycles must be accommodated. A condition of approval requires that each of the seven buildings have a bicycle rack that accommodates at least 4 bicycles.
- Complies with drainage and water quality requirements. The applicant has submitted a preliminary Low Impact Development (LID) Plan to the City Engineer per Chapter 13.16 of the Municipal Code and the project can meet drainage and water quality requirements. The LID improvements will be implemented prior to issuance of the grading plan and/or final approval of the building.

Staff recommends that the City Council approve Development Plan 16-3 and Tentative Parcel Map 350 based on the following findings:

- The project site is suitable for development in accordance with the proposed project because the site is proposed to be subdivided and developed in a manner that complies with minimum lot area and frontage requirements, is flat and free from hazards as noted in the accompanying Initial Study/Mitigated Negative Declaration, and is designated as Employment in the General Plan and zoned Industrial, which are consistent with the proposed industrial development.

- The total development is arranged so as to avoid traffic congestion, ensure the public health, safety and general welfare or prevent adverse effects upon neighboring properties because, as noted in the accompanying Initial Study/Mitigated Negative Declaration, the proposed project would add approximately 701 vehicle trips, which equates to approximately 70 morning trips and 64 evening trips, which would not significantly impact road capacity. In addition the IS/MND mitigation measures require the installation of shared turning lanes, and a stop control. In addition, the attached conditions of approval set operational and management standards that ensure the business that will operate in a manner consistent with the General Plan's policies related to noise, safety, property maintenance, and maintaining a professional appearance.

- The development is in general accord with all elements of the Industry Zoning Ordinance because, with the approval of the Zone Exception and Development Plan, the project complies with development standards in regards to building setbacks, height, parking, access, screening, and design.

- The development is consistent with the provisions of the General Plan because the Property is designated as Employment, which allows the development of buildings for industrial uses.

Environmental Analysis

An Initial Study has been prepared in accordance with the California Environmental Quality Act ("CEQA") to determine if the proposed use could have a significant impact on the environment. The Initial Study determined that the proposed project would not have a significant effect on the environment with the implementation of mitigation measures addressing the use of off-road diesel-fueled equipment that is California Air Resources Board Tier 3 Certified or better during construction activities, and the need to suspend grading work within 100 feet of a find if paleontological or tribal cultural resources are discovered. The mitigation measures are contained in a Mitigated Negative

Declaration, which has been prepared in conformance with Section 21081.6 of the Public Resources Code and which provides a vehicle to monitor compliance with the mitigation measure (Attachment 11).

The Notice of Intent to Adopt a Mitigated Negative Declaration (Attachment11) was posted on the site, fire stations, City Hall and Council Chambers, and published in the San Gabriel Valley Tribune on September 23, 2016.

AB 52 Tribal Consultation

AB 52 requires that the City provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested to be notified. If the tribes do not respond within 30 days of being notified, then the AB 52 consultation process is concluded. In this case, the City notified the Gabrieleño Band of Mission Indians – Kizh Nation and Soboba Band of Luiseño Indians on October 6, 2015, and did not receive responses within the 30 day period.

A condition of approval has been added that requires the applicant if archeological resources be uncovered during site preparation, grading, or excavation, work shall be stopped for a period not to exceed 14 days. The find shall be immediately evaluated for significance by a county-certified archaeologist. If the archaeological resources are found to be significant, the archaeologist shall perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit resources to the California State University Fullerton; and provide a comprehensive final report including appropriate records for the California Department of Parks and Recreation (Building, Structure, and Object Record; Archaeological Site Record; or District Record, as applicable).

Conditions of Approval

Currently, Condition No. 2 for the Project requires that all perimeter walls and fencing, and maintenance of all common areas, be maintained in the future by either an Owner's Association or by bond. This condition was put in place to ensure that the wall is properly maintained in the future, given that portions of the wall will be under separate ownership because of the subdivision of the Property.

The Applicant has requested that the City Council revise Condition No. 2 as follows:
Attach a provision at sale in escrow and on title requiring the owner and future owners to maintain the wall that would be tied to the Property. Or, require the owners to maintain insurance to cover the maintenance of the wall and attach a condition on escrow/title.

Fiscal Impact

The projects fiscal impact will include increased property tax revenue to the City of Industry but also will include increased street, lighting and sewer maintenance.

Recommendation

Because the Project complies with the development standards of the Municipal Code, does not pose a significant impact on the environment, and satisfies the above-mentioned findings, Staff recommends that the City Council:

1) Adopt Resolution No. CC 2016-78 (Attachment 9) approving the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program; and

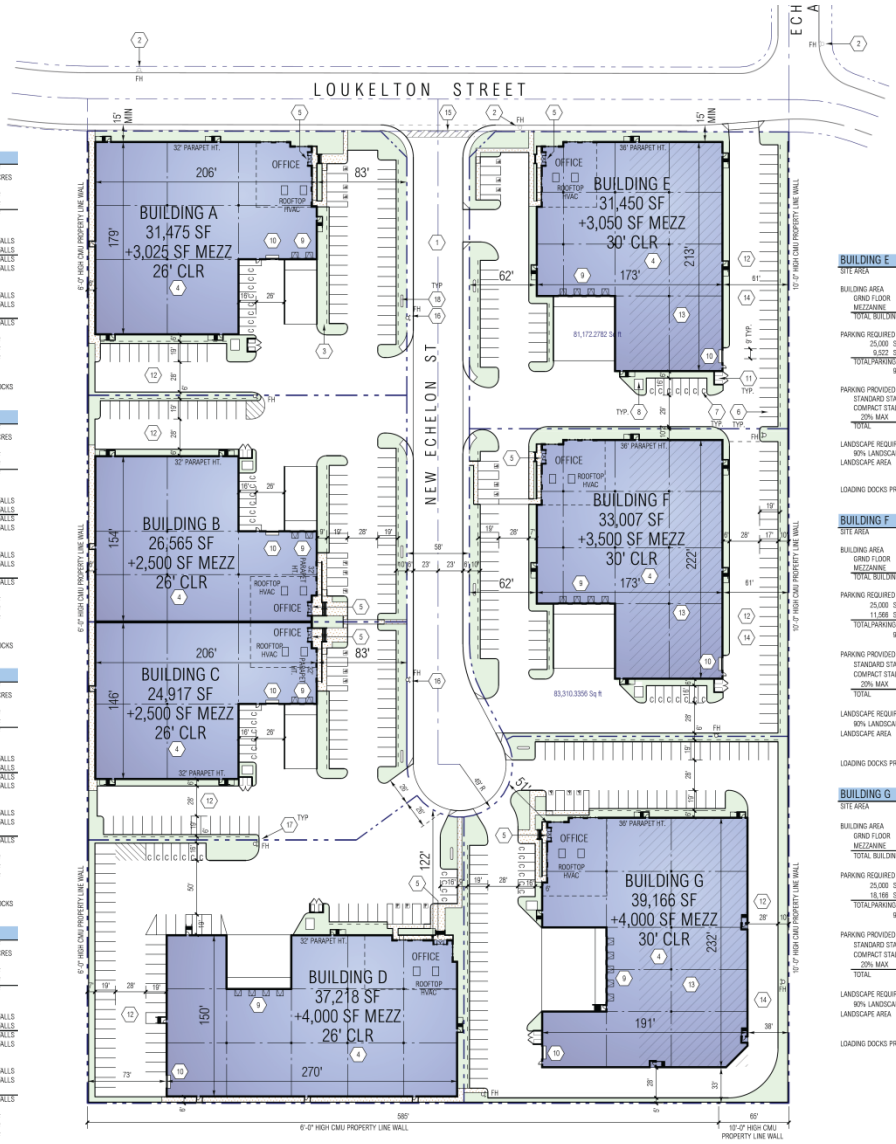
2) Adopt Resolution No. CC 2016-79 (Attachment 10) approving Tentative Parcel Map 350, Zone Exception 16-1, and Development Plan No. 16-3 with the Standard Requirements and Conditions of Approval contained in the Resolution.

Attachments

- Attachment 1: Location Map
- Attachment 2: Overall Site Plan
- Attachment 3: Tentative Parcel Map
- Attachment 4: Building A Elevations
- Attachment 5: Building B Elevations
- Attachment 6: Building C Elevations
- Attachment 7: Building D Elevations
- Attachment 8: Building E Elevations
- Attachment 9: Building F Elevations
- Attachment 10: Building G Elevations
- Attachment 11: Resolution No. CC 2016-78 including the Notice of Intent to Adopt a Mitigated Negative Declaration; Initial Study/Mitigated Negative Declaration for Echelon Avenue Commerce Park, September 2016; and Mitigation Monitoring and Reporting Program
- Attachment 12: Resolution No. CC 2016-79 approving Tentative Parcel Map 350, Zone Exception 16-1, Development Plan No. 16-3 with the Standard Requirements and Conditions of Approval contained in the Resolution

Attachment 1
TPM 350, DP 16-3 and ZE 16-1
Location Map

Attachment 2
Overall Site Plan



BUILDING A

SITE AREA	72,139	SF
	1.66	ACRES
BUILDING AREA		
GRND FLOOR	31,475	SF
MEZZANINE	3,072	SF
TOTAL BUILDING	34,547	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50	STALLS
9,547 SF 25-100K SF @ 1/750	12	STALLS
TOTALPARKING REQUIRED	62	STALLS
90% PARKING REQUIRED	55	STALLS
PARKING PROVIDED		
STANDARD STALLS	48	STALLS
COMPACT STALLS	8	STALLS
20% MAX 14%		
TOTAL	56	STALLS
LANDSCAPE REQUIRED OF NET SITE AREA @ 12%	8,657	SF
90% LANDSCAPE REQUIRED	7,791	SF
LANDSCAPE AREA PROVIDED	11,378	SF
	16%	
LOADING DOCKS PROVIDED	2	DOCKS

BUILDING B

SITE AREA	62,163	SF
	1.43	ACRES
BUILDING AREA		
GRND FLOOR	26,565	SF
MEZZANINE	2,521	SF
TOTAL BUILDING	29,086	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50	STALLS
4,086 SF 25-100K SF @ 1/750	5	STALLS
TOTALPARKING REQUIRED	55	STALLS
90% PARKING REQUIRED	49	STALLS
PARKING PROVIDED		
STANDARD STALLS	44	STALLS
COMPACT STALLS	6	STALLS
20% MAX 12%		
TOTAL	50	STALLS
LANDSCAPE REQUIRED OF NET SITE AREA @ 12%	7,459	SF
90% LANDSCAPE REQUIRED	6,713	SF
LANDSCAPE AREA	7,389	SF
	12%	
LOADING DOCKS PROVIDED	2	DOCKS

BUILDING C

SITE AREA	60,472	SF
	1.39	ACRES
BUILDING AREA		
GRND FLOOR	24,917	SF
MEZZANINE	2,521	SF
TOTAL BUILDING	27,438	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50	STALLS
2,438 SF 25-100K SF @ 1/750	3	STALLS
TOTALPARKING REQUIRED	53	STALLS
90% PARKING REQUIRED	47	STALLS
PARKING PROVIDED		
STANDARD STALLS	41	STALLS
COMPACT STALLS	6	STALLS
20% MAX 13%		
TOTAL	47	STALLS
LANDSCAPE REQUIRED OF NET SITE AREA @ 12%	7,257	SF
90% LANDSCAPE REQUIRED	6,531	SF
LANDSCAPE AREA	7,178	SF
	12%	
LOADING DOCKS PROVIDED	2	DOCKS

BUILDING D

SITE AREA	86,113	SF
	1.98	ACRES
BUILDING AREA		
GRND FLOOR	37,218	SF
MEZZANINE	4,000	SF
TOTAL BUILDING	41,218	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50	STALLS
16,218 SF 25-100K SF @ 1/750	21	STALLS
TOTALPARKING REQUIRED	71	STALLS
90% PARKING REQUIRED	63	STALLS
PARKING PROVIDED		
STANDARD STALLS	54	STALLS
COMPACT STALLS	11	STALLS
20% MAX 17%		
TOTAL	65	STALLS
LANDSCAPE REQUIRED OF NET SITE AREA @ 12%	10,333	SF
90% LANDSCAPE REQUIRED	9,300	SF
LANDSCAPE AREA	9,402	SF
	11%	
LOADING DOCKS PROVIDED	4	DOCKS

BUILDING E

SITE AREA	81,173	SF
	1.86	ACRES
BUILDING AREA		
GRND FLOOR	31,450	SF
MEZZANINE	3,072	SF
TOTAL BUILDING	34,522	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50	STALLS
9,522 SF 25-100K SF @ 1/750	12	STALLS
TOTALPARKING REQUIRED	62	STALLS
90% PARKING REQUIRED	55	STALLS
PARKING PROVIDED		
STANDARD STALLS	49	STALLS
COMPACT STALLS	7	STALLS
20% MAX 13%		
TOTAL	56	STALLS
LANDSCAPE REQUIRED OF NET SITE AREA @ 12%	9,741	SF
90% LANDSCAPE REQUIRED	8,767	SF
LANDSCAPE AREA	12,658	SF
	16%	
LOADING DOCKS PROVIDED	4	DOCKS

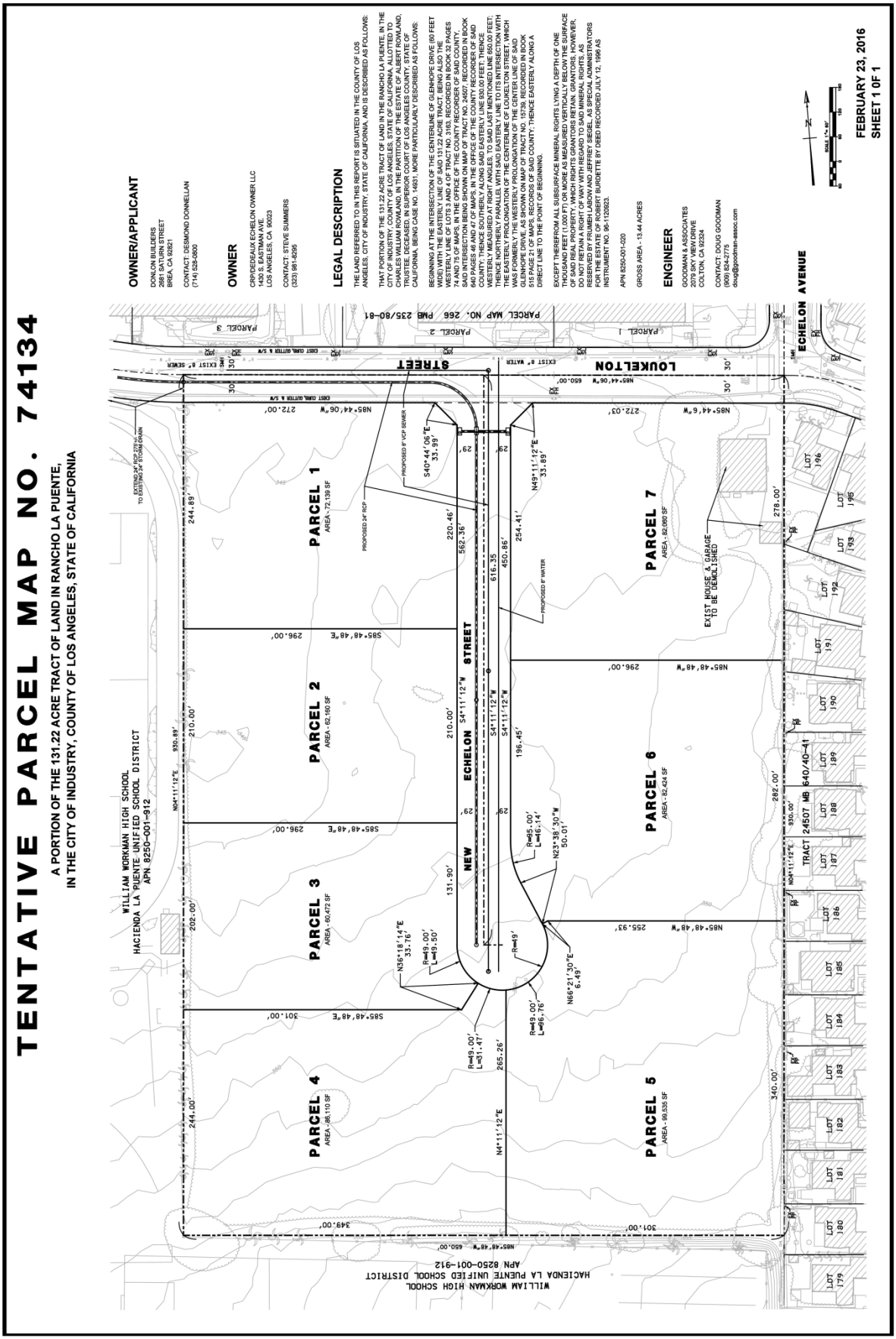
BUILDING F

SITE AREA	83,311	SF
	1.91	ACRES
BUILDING AREA		
GRND FLOOR	33,007	SF
MEZZANINE	3,559	SF
TOTAL BUILDING	36,566	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50	STALLS
11,566 SF 25-100K SF @ 1/750	15	STALLS
TOTALPARKING REQUIRED	65	STALLS
90% PARKING REQUIRED	58	STALLS
PARKING PROVIDED		
STANDARD STALLS	56	STALLS
COMPACT STALLS	7	STALLS
20% MAX 11%		
TOTAL	63	STALLS
LANDSCAPE REQUIRED OF NET SITE AREA @ 12%	9,997	SF
90% LANDSCAPE REQUIRED	8,997	SF
LANDSCAPE AREA	12,044	SF
	14%	
LOADING DOCKS PROVIDED	4	DOCKS

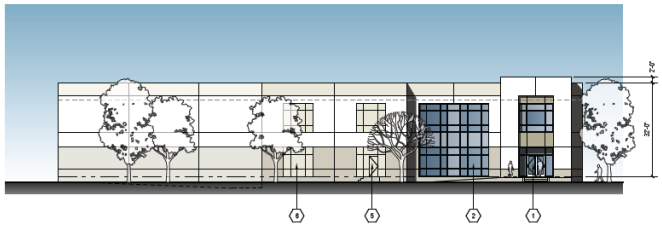
BUILDING G

SITE AREA	99,555	SF
	2.29	ACRES
BUILDING AREA		
GRND FLOOR	39,166	SF
MEZZANINE	4,000	SF
TOTAL BUILDING	43,166	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50	STALLS
18,166 SF 25-100K SF @ 1/750	24	STALLS
TOTALPARKING REQUIRED	74	STALLS
90% PARKING REQUIRED	66	STALLS
PARKING PROVIDED		
STANDARD STALLS	67	STALLS
COMPACT STALLS	6	STALLS
20% MAX 8%		
TOTAL	73	STALLS
LANDSCAPE REQUIRED OF NET SITE AREA @ 12%	11,944	SF
90% LANDSCAPE REQUIRED	10,750	SF
LANDSCAPE AREA	11,767	SF
	12%	
LOADING DOCKS PROVIDED	5	DOCKS

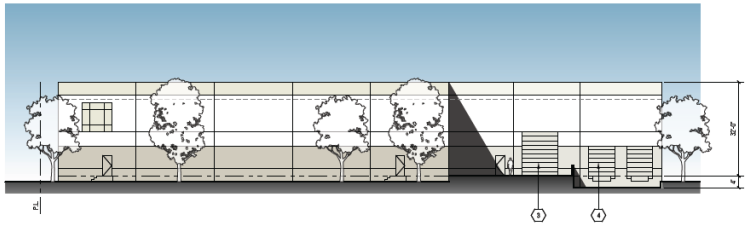
Attachment 3
Tentative Parcel Map 350



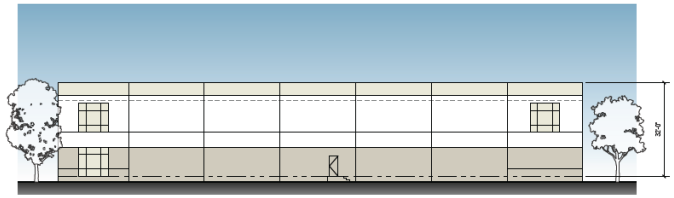
Attachment 4
Building A Elevations



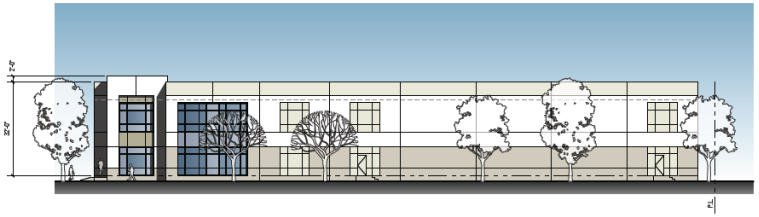
EAST ELEVATION - BUILDING A
SCALE: 1/16" = 1'-0"



SOUTH ELEVATION - BUILDING A
SCALE: 1/16" = 1'-0"



WEST ELEVATION - BUILDING A
SCALE: 1/16" = 1'-0"



NORTH ELEVATION - BUILDING A
SCALE: 1/16" = 1'-0"

0' 10' 20' 40'

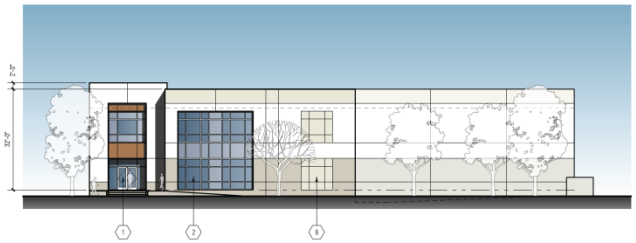
KEYNOTES

1. PRIMARY ACCESSIBLE BUILDING ENTRY
2. TWO TONES OF BLUE GLAZING IN CLEAR ANODIZED ALUMINUM STOREFRONT.
3. PAINTED DOCK HIGH TRUCK LOADING DOOR.
4. PAINTED GRADE LEVEL TRUCK LOADING DOOR.
5. 3' X 7' PAINTED METAL MAN DOOR.
6. PAINTED CONCRETE BUILDING WALL WITH 3/4" DEEP REVEAL SCORE LINES.

FINISH SCHEDULE

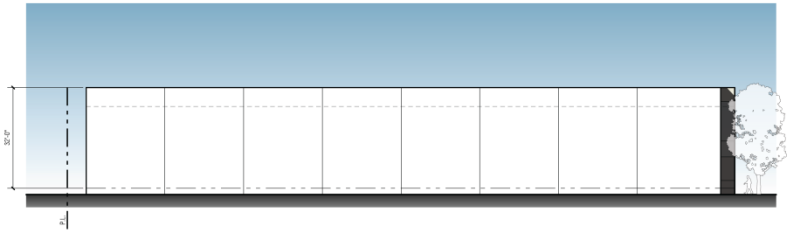
1. FIELD COLOR: SHERWIN WILLIAMS SW 7004 SNOWBOUND
2. ACCENT COLOR: SHERWIN WILLIAMS 7043 WORLDLY GRAY
3. ACCENT COLOR: SHERWIN WILLIAMS SW 7052 GRAY AREA
4. BASE COLOR: SHERWIN WILLIAMS SW 6185 COMMECTED GRAY
5. GLAZING: 1" INSULATED PPG SOLARCOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.
6. GLAZING: 1" INSULATED PPG VISTACOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.

Attachment 5
Building B Elevations



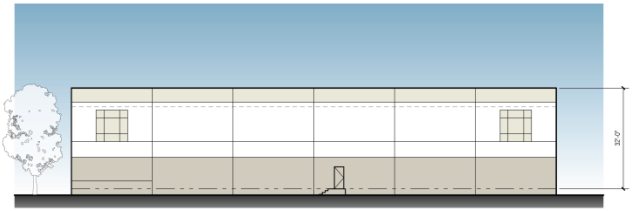
EAST ELEVATION - BUILDING B

SCALE: 1/16" = 1'-0"



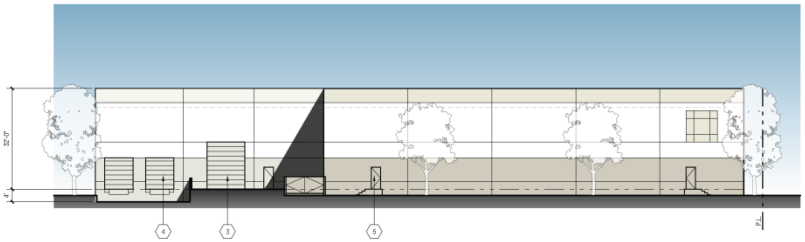
SOUTH ELEVATION - BUILDING B (ABUTTING BUILDING C)

SCALE: 1/16" = 1'-0"



WEST ELEVATION - BUILDING B

SCALE: 1/16" = 1'-0"



NORTH ELEVATION - BUILDING B

SCALE: 1/16" = 1'-0"

0' 10' 20' 40'

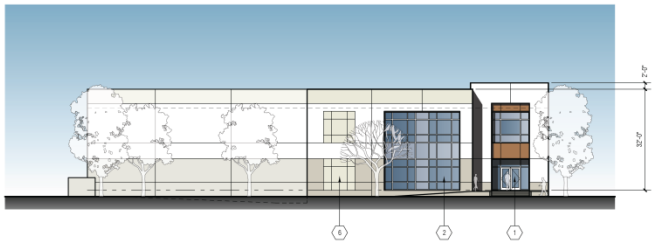
KEYNOTES (XX)

1. PRIMARY ACCESSIBLE BUILDING ENTRY
2. TWO TONES OF BLUE GLAZING IN CLEAR ANODIZED ALUMINUM STOREFRONT.
3. PAINTED DOCK HIGH TRUCK LOADING DOOR.
4. PAINTED GRADE LEVEL TRUCK LOADING DOOR.
5. 3' X 7' PAINTED METAL MAN DOOR.
6. PAINTED CONCRETE BUILDING WALL WITH 3/4" DEEP REVEAL SCORE LINES.

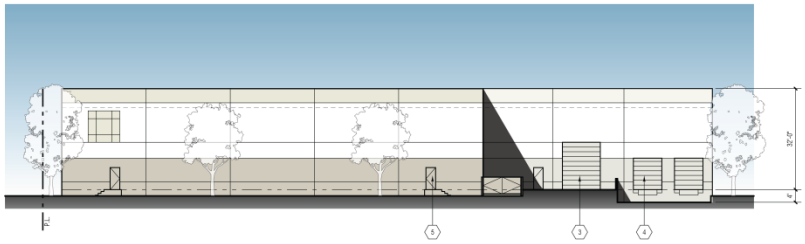
FINISH SCHEDULE

1. FIELD COLOR: SHERWIN WILLIAMS SW 7004 SNOWBOUND
2. ACCENT COLOR: SHERWIN WILLIAMS 7043 WORLDLY GRAY
3. ACCENT COLOR: SHERWIN WILLIAMS SW 7052 GRAY AREA
4. BASE COLOR: ICI CENTRE COURT A170T
5. GLAZING: 1" INSULATED PPG SOLARCOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.
6. GLAZING: 1" INSULATED PPG VISTACOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.

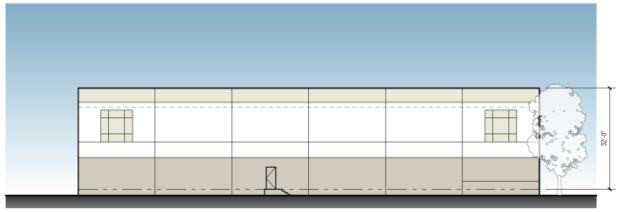
Attachment 6
Building C Elevations



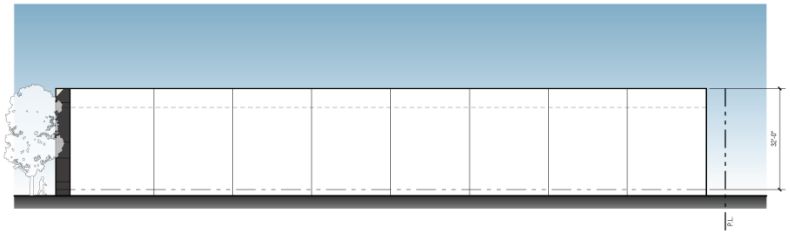
EAST ELEVATION - BUILDING C
SCALE: 1/16" = 1'-0"



SOUTH ELEVATION - BUILDING C
SCALE: 1/16" = 1'-0"



WEST ELEVATION - BUILDING C
SCALE: 1/16" = 1'-0"



NORTH ELEVATION - BUILDING C (ABUTTING BUILDING B)
SCALE: 1/16" = 1'-0"

0' 10' 20' 40'

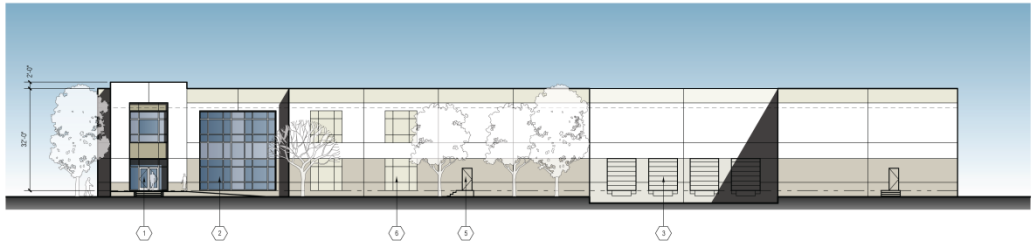
KEYNOTES

1. PRIMARY ACCESSIBLE BUILDING ENTRY
2. TWO TONES OF BLUE GLAZING IN CLEAR ANODIZED ALUMINUM STOREFRONT.
3. PAINTED DOCK HIGH TRUCK LOADING DOOR.
4. PAINTED GRADE LEVEL TRUCK LOADING DOOR.
5. 3' X 7' PAINTED METAL MAN DOOR.
6. PAINTED CONCRETE BUILDING WALL WITH 3/4" DEEP REVEAL SCORE LINES.

FINISH SCHEDULE

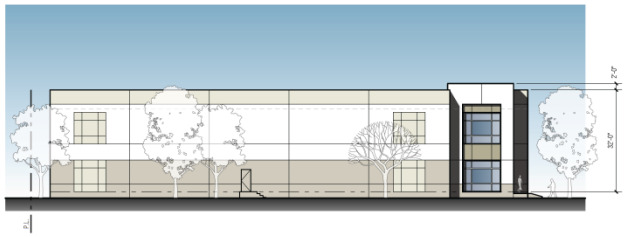
1. FIELD COLOR: SHERWIN WILLIAMS SW 7004 SNOWBOUND
2. ACCENT COLOR: SHERWIN WILLIAMS 7043 WORLDLY GRAY
3. ACCENT COLOR: SHERWIN WILLIAMS SW 7062 GRAY AREA
4. BASE COLOR: ICI CENTRE COURT A1707
5. GLAZING: 1" INSULATED PPG SOLARCOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.
6. GLAZING: 1" INSULATED PPG VISTACOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.

Attachment 7
Building D Elevations



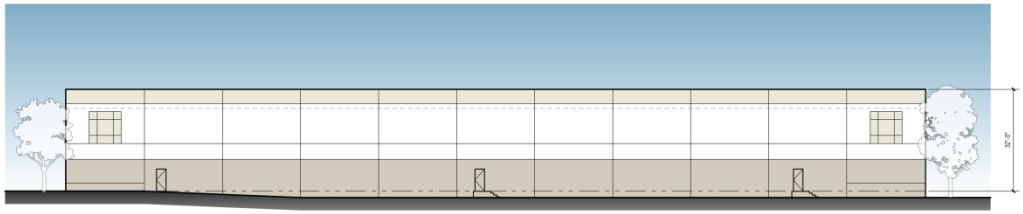
NORTH ELEVATION - BUILDING D

SCALE: 1/16" = 1'-0"



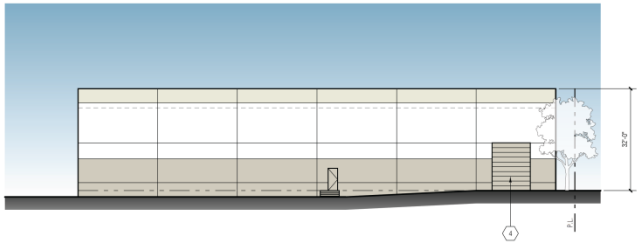
EAST ELEVATION - BUILDING D

SCALE: 1/16" = 1'-0"



SOUTH ELEVATION - BUILDING D

SCALE: 1/16" = 1'-0"



WEST ELEVATION - BUILDING D

SCALE: 1/16" = 1'-0"

0' 10' 20' 40'

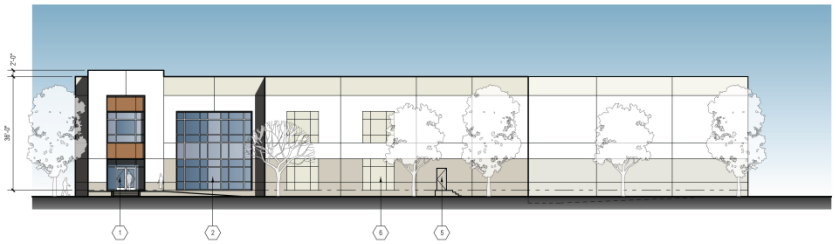
KEYNOTES

1. PRIMARY ACCESSIBLE BUILDING ENTRY
2. TWO TONES OF BLUE GLAZING IN CLEAR ANODIZED ALUMINUM STOREFRONT.
3. PAINTED DOCK HIGH TRUCK LOADING DOOR.
4. PAINTED GRADE LEVEL TRUCK LOADING DOOR.
5. 3' X 7' PAINTED METAL MAN DOOR.
6. PAINTED CONCRETE BUILDING WALL WITH 3/4" DEEP REVEAL SCORE LINES.

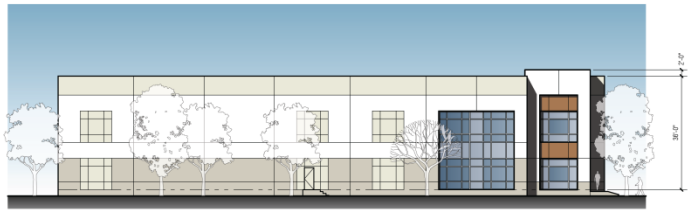
FINISH SCHEDULE

1. FIELD COLOR: SHERWIN WILLIAMS SW 7004 SNOWBOUND
2. ACCENT COLOR: SHERWIN WILLIAMS 7043 WORLDLY GRAY
3. ACCENT COLOR: SHERWIN WILLIAMS SW 7052 GRAY AREA
4. BASE COLOR: SHERWIN WILLIAMS SW 6165 CONNECTED GRAY
5. GLAZING: 1" INSULATED PPG SOLARCOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.
6. GLAZING: 1" INSULATED PPG VISTACOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.

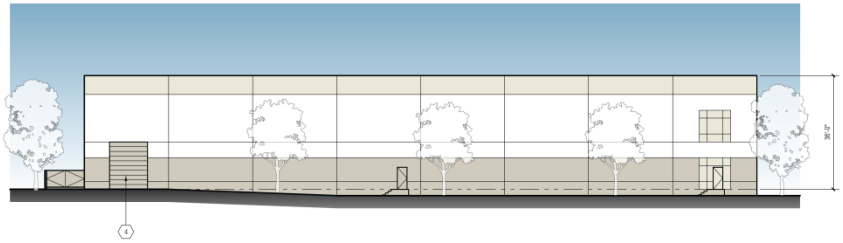
Attachment 8
Building E Elevations



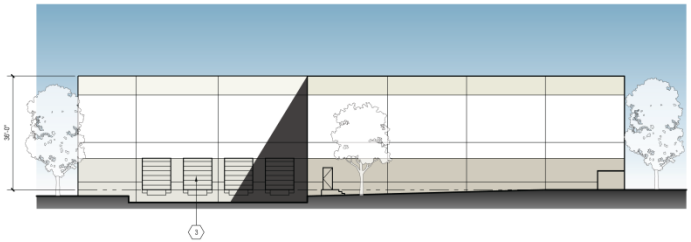
WEST ELEVATION - BUILDING E
SCALE: 1/16" = 1'-0"



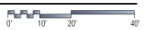
NORTH ELEVATION - BUILDING E
SCALE: 1/16" = 1'-0"



EAST ELEVATION - BUILDING E
SCALE: 1/16" = 1'-0"



SOUTH ELEVATION - BUILDING E
SCALE: 1/16" = 1'-0"



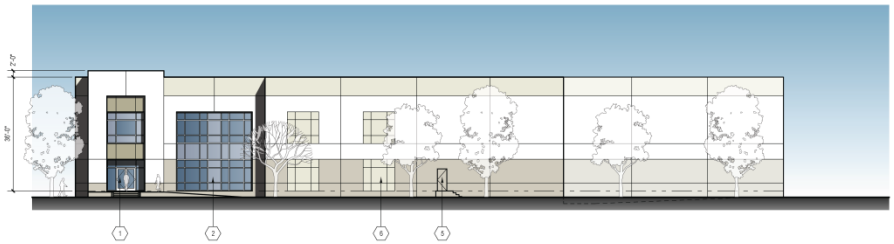
KEYNOTES (XX)

1. PRIMARY ACCESSIBLE BUILDING ENTRY
2. TWO TONES OF BLUE GLAZING IN CLEAR ANODIZED ALUMINUM STOREFRONT.
3. PAINTED DOCK HIGH TRUCK LOADING DOOR.
4. PAINTED GRADE LEVEL TRUCK LOADING DOOR.
5. 3' X 7' PAINTED METAL MAN DOOR.
6. PAINTED CONCRETE BUILDING WALL WITH 3/4" DEEP REVEAL SCORE LINES.

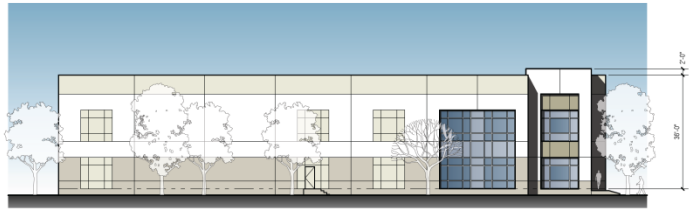
FINISH SCHEDULE

1. FIELD COLOR: SHERWIN WILLIAMS SW 7004 SNOWBOUND
2. ACCENT COLOR: SHERWIN WILLIAMS 7043 WORLDLY GRAY
3. ACCENT COLOR: SHERWIN WILLIAMS SW 7062 GRAY AREA
4. BASE COLOR: ICI CENTRE COURT A1707
5. GLAZING: 1" INSULATED PPG SOLARCOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.
6. GLAZING: 1" INSULATED PPG VISTACOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.

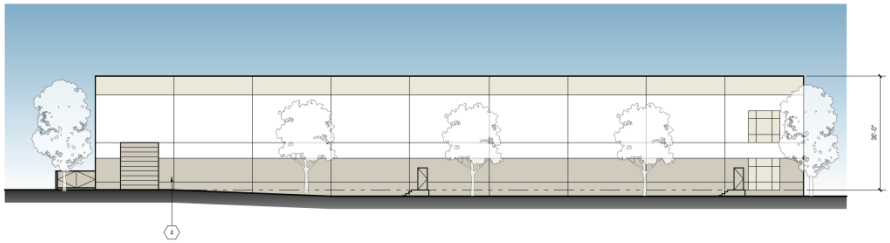
Attachment 9
Building F Elevations



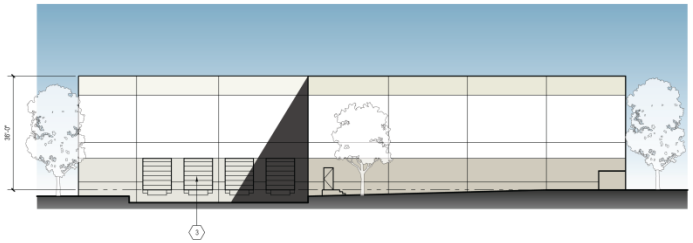
WEST ELEVATION - BUILDING F
SCALE: 1/16" = 1'-0"



NORTH ELEVATION - BUILDING F
SCALE: 1/16" = 1'-0"



EAST ELEVATION - BUILDING F
SCALE: 1/16" = 1'-0"



SOUTH ELEVATION - BUILDING F
SCALE: 1/16" = 1'-0"

0' 10' 20' 40'

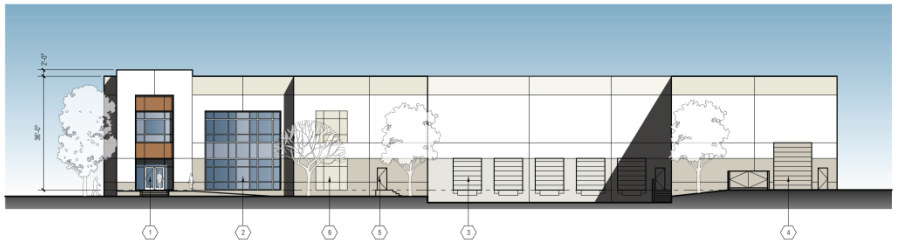
KEYNOTES (XX)

1. PRIMARY ACCESSIBLE BUILDING ENTRY
2. TWO TONES OF BLUE GLAZING IN CLEAR ANODIZED ALUMINUM STOREFRONT.
3. PAINTED DOCK HIGH TRUCK LOADING DOOR.
4. PAINTED GRADE LEVEL TRUCK LOADING DOOR.
5. 3' X 7' PAINTED METAL MAN DOOR.
6. PAINTED CONCRETE BUILDING WALL WITH 3/4" DEEP REVEAL SCORE LINES.

FINISH SCHEDULE

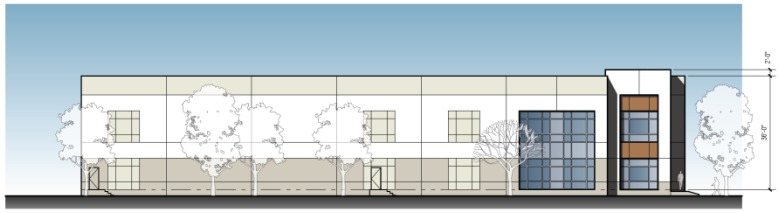
1. FIELD COLOR: SHERWIN WILLIAMS SW 7004 SNOWBOUND
2. ACCENT COLOR: SHERWIN WILLIAMS 7043 WORLDLY GRAY
3. ACCENT COLOR: SHERWIN WILLIAMS SW 7052 GRAY AREA
4. BASE COLOR: SHERWIN WILLIAMS SW 6165 CONNECTED GRAY
5. GLAZING: 1" INSULATED PPG SOLARCOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.
6. GLAZING: 1" INSULATED PPG VISTACOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.

Attachment 10
Building G Elevations



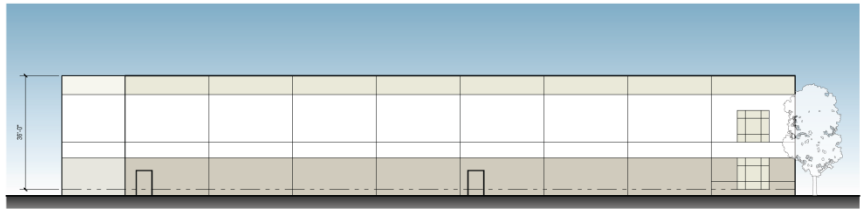
WEST ELEVATION - BUILDING G

SCALE: 1/16" = 1'-0"



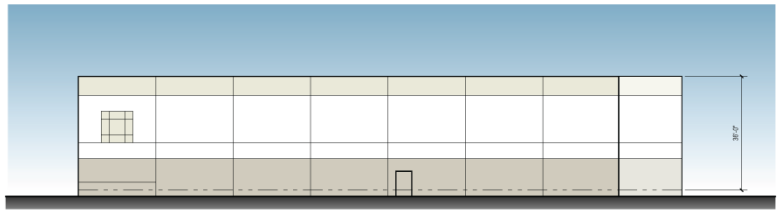
NORTH ELEVATION - BUILDING G

SCALE: 1/16" = 1'-0"



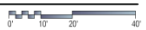
EAST ELEVATION - BUILDING G

SCALE: 1/16" = 1'-0"



SOUTH ELEVATION - BUILDING G

SCALE: 1/16" = 1'-0"



KEYNOTES (000)

1. PRIMARY ACCESSIBLE BUILDING ENTRY
2. TWO TONES OF BLUE GLAZING IN CLEAR ANODIZED ALUMINUM STOREFRONT.
3. PAINTED DOCK HIGH TRUCK LOADING DOOR.
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6. GLAZING: 1" INSULATED PPG VISTACOOL PACIFICA REFLECTIVE #2 IN CLEAR ANODIZED ALUMINUM STOREFRONT.

Attachment 11

Resolution No. CC 2016-78

Including:

- **Notice of Intent to Adopt a Mitigated Negative Declaration**
- **Initial Study/ Mitigated Negative Declaration**
- **Mitigation Monitoring and Reporting Program**

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RESOLUTION NO. CC 2016-78

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA ADOPTING AN INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION AND A MITIGATION MONITORING AND REPORTING PROGRAM FOR THE ECHELON AVENUE INDUSTRIAL PROJECT PROPERTY LOCATED AT THE SOUTHWEST CORNER OF LOUKELTON STREET AND ECHELON AVENUE IN THE CITY OF INDUSTRY, WITHIN THE 'I' INDUSTRIAL ZONE

RECITALS

WHEREAS, on February 24, 2016, Donlon Builders ("Applicant") filed an application for approval of Tentative Parcel Map 350, Zone Exception 16-1, and Development Plan No. 16-3, and described herein ("Application"); and

WHEREAS, the Application applies to a 13.4 acre property located southwest of the intersection of Loukelton Street and Echelon Avenue, City of Industry, California, Assessor's Parcel Numbers 8250-001-020 ("Property"); and

WHEREAS, the Applicant desires to subdivide the Property into seven parcels within the "I" Industrial Zone, and construct seven industrial warehouse buildings with a total combined 246,543 square feet (the "Project"), and in accordance with Sections 16.12.030 and 17.36.020 of the City's Municipal Code ("Code"), a Tentative Parcel Map and Development Plan are required for the subdivision of land and the creation of new parcels, and to construct the Project; and

WHEREAS, the Application also includes a request for a Zone Exception for a reduced street setback on Loukelton Street. The Municipal Code Section 17.36.070 requires a minimum 30 foot setback from all streets. A 15 foot street setback is proposed for building A and building E along Loukelton Street. In accordance with Chapter 17.40 of the Code, a Zone Exception is required for this request; and

WHEREAS, the Land Use Element of the General Plan designates the Property as Employment, which allows for Industrial uses when the property is zoned appropriately. In this case, the Property is zoned Industrial and industrial buildings are permitted and conform to the Employment land use designation. The Project is consistent with the General Plan as it allows the construction of industrial buildings similar to other properties in the same land use designation, and does not conflict with the established goals and objectives of the Land Use Element; and

WHEREAS, in accordance with CEQA, California Environmental Quality Act ("CEQA"), California Public Resources Code section 21000 *et seq.,* the State CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, sections 15000 *et seq.*,

and the Environmental Impact Report Guidelines of the City, an initial study was performed, the result of which was preparation and circulation of a mitigated negative declaration ("IS/MND"), attached hereto as Exhibit B, and incorporated herein by reference, analyzing the Project and concluding that approval of the Project could not have a significant effect on the environment because the impacts of the Project could all be mitigated to levels below established CEQA thresholds of significance with the adoption of mitigation measures and enforcement of such measures through a Mitigation Monitoring and Reporting Program ("MMRP"), attached hereto as Exhibit C, and incorporated herein by reference; and

WHEREAS, the Initial Study/Mitigated Negative Declaration was circulated for public and agency review and comment on September 23, 2016, through, and including, October 12, 2016. Copies of the Initial Study/Mitigated Negative Declaration were made available to the public at the Planning Department on September 23, 2016, and the Initial Study/Mitigated Negative Declaration was distributed to interested parties and agencies. On September 23, 2016, a Notice of Intent to Adopt a Mitigated Negative Declaration (Exhibit A), including the time and place of the Planning Commission hearing to review the Application and Initial Study/Mitigated Negative Declaration, was published in the local newspaper and posted at the Property, City Hall, Council Chambers and Fire Station 118; and

WHEREAS, the Initial Study/Mitigated Negative Declaration concluded that implementation of the Project could result in a significant effect on the environment and identified a mitigation measure that would reduce the significant effects to a less-than-significant level. The proposed Project has the potential for significant effects in environmental topics Aesthetics, Air Quality, Cultural Resources, Hazards and Hazardous Materials, Noise, and Transportation/Traffic, but each of those potential impacts is mitigated to less than significant with the mitigation measures identified in the proposed Mitigated Negative Declaration; and

WHEREAS, the Planning Commission reviewed the Staff Report and the Initial Study/Mitigated Negative Declaration, at a duly noticed public hearing held on October 13, 2016, and considered all testimony written and oral; and

WHEREAS, the Planning Commission recommended City Council approval of the Initial Study/Mitigated Negative Declaration, at its duly noticed public hearing held on October 13, 2016; and

WHEREAS, notice of the City Council's December 8, 2016, public hearing on the Application was published in The San Gabriel Valley Tribune on November 28, 2016, in compliance with the City's Code and Government Code Section 65091, and was posted at the Property and at three public places on November 28, 2016; and

WHEREAS, on December 8, 2016, the City Council of the City of Industry conducted a duly noticed public hearing to consider the Project, Initial Study/Mitigated

Negative Declaration and Mitigation Monitoring and Reporting Program ("MMRP"), and considered all testimony written and oral; and

WHEREAS, the City Council has reviewed and carefully considered the information in the Initial Study/Mitigated Negative Declaration and the MMRP, including all comment letters submitted, and makes the findings contained in this Resolution, and adopts the Initial Study/Mitigated Negative Declaration and the MMRP, as an objective and accurate document that reflects the independent judgment and analysis of the City in the discussion of the Project's environmental impacts; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF INDUSTRY DOES HEREBY RESOLVE, DETERMINE, FIND, AND ORDER AS FOLLOWS:

SECTION 1: That based on the entirety of the record before it, which includes without limitation, the California Environmental Quality Act, Public Resources Code §§ 21000, et seq. ("CEQA") and the CEQA Guidelines, 14 California Code of Regulations § 15000, *et seq.*; the Environmental Impact Report Guidelines of the City of Industry; the Initial Study/Mitigated Negative Declaration and MMRP, prepared for the Project and Subdivision, including all written comments received; all reports, minutes, and public testimony submitted as part of the Planning Commission's duly noticed public hearing of October 13, 2016, and as part of the City Council's duly noticed public hearing of December 8, 2016; and any other evidence (within the meaning of Public Resources Code §21080(e) and §21082.2), the City Council of the City of Industry hereby finds as follows:

A. The foregoing recitals are true and correct and made a part of this Resolution.

B. The IS/MND and MMRP for the Project including any comment letters received, are attached hereto as (Exhibits B and C) and are incorporated by reference as part of this Resolution, as if each were set forth fully herein.

C. The documents and other material constituting the record for these proceedings are located at the Office of the City Clerk, City of Industry, 15625 E. Stafford, Suite 100, City of Industry, CA 91744.

D. The Project is consistent with the City's General Plan because the land use, development standards, densities and intensities, buildings and structures proposed are compatible with the goals, policies, and land use designations established in the General Plan (see Gov't Code, § 65860), and none of the land uses, development standards, densities and intensities, buildings and structures will operate to conflict with or impede achievement of the any of the goals, policies, or land use designations established in the General Plan.

E. In accordance with CEQA, the City Council has considered the Initial Study and Mitigated Negative Declaration and MMRP for the Project, including all comments received on the Initial Study and Mitigated Negative Declaration, and based on the entirety of the record, as described above, the City Council, exercising its independent judgment and analysis, makes the following findings regarding the environmental analysis of the Project:

1. Design features of the Project, as well as the mitigation measures proposed in the Initial Study and Mitigated Negative Declaration and included in the MMRP, will operate to ensure the impacts of the Project will not exceed established CEQA thresholds of significance. Therefore, and as further documented in the Initial Study and Mitigated Negative Declaration for the Project, additional mitigation measures beyond those established in the MMRP are not required for the Project.

2. For the reasons stated in this Resolution, the City Council finds that there is no substantial evidence in the record supporting a fair argument that approval of the Project will result in a significant environmental effect.

F. That the City Council of the City of Industry hereby makes the findings contained in this Resolution, and hereby adopts the Initial Study/Mitigated Negative Declaration for the Project, including the MMRP.

SECTION 2: The provisions of this Resolution are severable and if any provision, clause, sentence, word or part thereof is held illegal, invalid, unconstitutional, or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, sections, words or parts thereof of the Resolution or their applicability to other persons or circumstances.

SECTION 3: That the City Clerk shall certify to the adoption of this Resolution and that the same shall be in full force and effect.

(SIGNATURES AND RECORD OF VOTE ON FOLLOWING PAGE)

PASSED, APPROVED AND ADOPTED by the City Council of the City of Industry at a regular meeting held on December 8, 2016, by the following vote:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

_____
Mark D. Radecki, Mayor

ATTEST:

_____
Diane M. Schlichting, Chief Deputy City Clerk

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Exhibit A
Notice of Intent to Adopted a Mitigated Negative Declaration

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CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

NOTICE OF INTENT TO ADOPT A
MITIGATED NEGATIVE DECLARATION
TENTATIVE PARCEL MAP 350
ZONE EXCEPTION 16-1
DEVELOPMENT PLAN 16-3
751 ECHELON AVENUE, CITY OF INDUSTRY

Purpose: In accordance with the State of California Public Resources Code Section 21092, Sections 15063 and 15072 of Title 14 of the California Code of Regulations pertaining to the California Environmental Quality Act, and the Industry Municipal Code, this is to advise you that the Planning Department of the City of Industry has prepared an initial study of environmental impacts on the following project and is recommending the environmental determination described below.

Project Description: The proposed project involves the development of an approximately 13.4-acre site with seven industrial/warehouse buildings totaling 246,543 square feet (12.52 acres of total development). The project site currently consists of a single parcel and would be subdivided into seven parcels and developed with concrete tilt-up industrial/warehouse buildings that would range between 27,438 and 43,166 square feet in size, with two to five dock doors each. The building heights would range between 32 and 36 feet high at the parapets. The proposed project would include construction of a new public street extension, New Echelon Street, providing access to the project site from Loukelton Street along the northern portion of the project site. The project would develop 410 surface parking stalls and 66,388 square feet of landscaping.

The project involves the following discretionary approvals from the City of Industry:

- Tentative Parcel Map 350
- Zone Exception 16-1
- Development Plan Application 16-3

Location: The project site is located at the southwest corner of Echelon Avenue and Loukelton Street in the City of Industry at 751 Echelon Avenue in Los Angeles County, CA 91744.

Environmental Determination: The proposed project has the potential for significant effects in environmental topics Aesthetics, Air Quality, Cultural Resources, Hazards and Hazardous Materials, Noise, and Transportation/Traffic, but each of those potential impacts is mitigated to less than significant with the mitigation measures identified in the proposed Mitigated Negative Declaration.

The project site is not included on any lists of hazardous waste sites enumerated pursuant to Section 65962.5 of the California Government Code (Cortese List).

The Initial Study/Environmental Checklist that has been prepared for the project recommends that the lead agency adopt a Mitigated Negative Declaration for the project.

Public Review and Comment Period: Copies of the proposed Mitigated Negative Declaration and Initial Study are available in the Planning Department at the address listed below. **A 20-day public review period for the Mitigated Negative Declaration begins September 23, 2016, and ends October 12, 2016**. Written comments on the adequacy of the document must be received by the City prior to 5:00 PM on October 12, 2016. If you would like to comment, please send written comments to:

Troy Helling, Senior Planner
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744
thelling@cityofindustry.org
(626) 333-2211

Public Hearing: The City of Industry Planning Commission will hold a Public Hearing for the project on October 13, 2016 at 11:00 AM at the City of Industry Council Chambers, 15651 E. Stafford Street, City of Industry, CA 91744. To confirm the date and time of the meeting, please check the City's website: www.cityofindustry.org.

Exhibit B
Initial Study/Mitigated Negative Declaration

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CITY OF INDUSTRY
ECHELON AVENUE COMMERCE PARK

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared for:

CITY OF INDUSTRY
15625 EAST STAFFORD STREET, SUITE 100
INDUSTRY, CA 91744

Prepared by:

Michael Baker
INTERNATIONAL

3900 KILROY AIRPORT WAY, SUITE 120
LONG BEACH, CA 90806

SEPTEMBER 2016

City of Industry

Echelon Avenue Commerce Park

Administrative Draft Initial Study
Mitigated Negative Declaration

Prepared for:

City of Industry
15625 East Stafford Street, Suite 100
Industry, CA 91744

Prepared by:

Michael Baker International
3900 Kilroy Airport Way, Suite 120
Long Beach, CA 90806

September 2016

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ENVIRONMENTAL CHECKLIST FORM

1. Project title: Echelon Avenue Commerce Park

2. Lead agency name and address: City of Industry
15625 East Stafford Street, Suite 100
Industry, CA 91744

3. Contact person and phone number: Troy Helling, City of Industry, Senior Planner
(626) 333-2211

4. Project location: The proposed Echelon Avenue Commerce Park site is located at the southwest corner of Echelon Avenue and Loukelton Street in the City of Industry. **Figure 1** shows the regional location, while **Figure 2** shows the location of the project site and the immediate vicinity.

5. Project sponsor's name and address: Donlon Builders
2681 Saturn Street
Brea, CA 92821

6. General Plan designation: General Industrial

7. Zoning: Industrial

8. Description of project:

The proposed project involves the development of an approximately 13.4-acre site with seven industrial/warehouse buildings totaling 246,373 square feet (12.52 acres of total development). The project site currently consists of a single parcel and would be subdivided into seven parcels and developed with concrete tilt-up industrial/warehouse buildings that would range between 27,417 and 43,166 square feet in size, with two to five dock doors each. The building heights would range between 32 and 36 feet high at the parapets. The proposed project would include construction of a new public street extension, New Echelon Street, providing access to the project site from Loukelton Street along the northern portion of the project site. The project would develop 415 surface parking stalls and 68,876 square feet of landscaping. **Table 1** provides details for each of the seven buildings. **Figure 3** shows the proposed project site plan. **Figures 4** through **10** show the proposed elevations for Buildings A through G, respectively.

As shown in **Figure 3**, each building would include rooftop-mounted heating, ventilation, and air conditioning (HVAC) equipment. The project would incorporate a 10-foot-wide landscape buffer along the eastern property line, adjacent to the existing residential uses. In addition, a 10-foot-high concrete masonry wall would be incorporated along the eastern property line, between the landscape buffer and the existing residential uses. The wall would continue west along the southern property line for approximately 65 feet. The remainder of the project's perimeter would be developed with a 6-foot-high concrete masonry wall. The two northernmost buildings, Buildings A and E, would be set back from Loukelton Street by 15 feet. Site access would be along Loukelton Street to the north into the newly constructed New Echelon Street, which would be a two-lane 48-foot-wide public road. A 26-foot-wide fire lane would be developed between the easternmost buildings (Buildings E, F, and G) and the 10-foot-wide landscaped buffer.

Construction activities are anticipated to begin in winter of 2017 and last approximately 12 months. Construction activities would occur as one phase with the following activities occurring sequentially: demolition of an existing 2,800-square-foot residence on the project site, followed by site preparation and then grading. Building construction would begin in spring 2017 and is anticipated to last until fall 2017, followed by architectural coating and site paving. Construction activities would be limited to the hours of 7:00 AM to 7:00 PM Monday through Saturday.

TABLE 1
PROJECT BUILDING DETAILS

Building	Site Area (acres)	Building Area (square feet)	Parking (stalls)	Landscaped Area (square feet)	Loading Docks
Building A	1.66	34,500	56	10,711	2
Building B	1.43	29,065	50	7,325	2
Building C	1.39	27,417	48	7,265	2
Building D	1.98	41,218	69	7,811	4
Building E	1.88	34,500	56	12,475	4
Building F	1.89	36,507	63	11,522	4
Building G	2.29	43,166	73	11,767	5
Totals	**12.52**	**246,373**	**415**	**68,876**	**23**

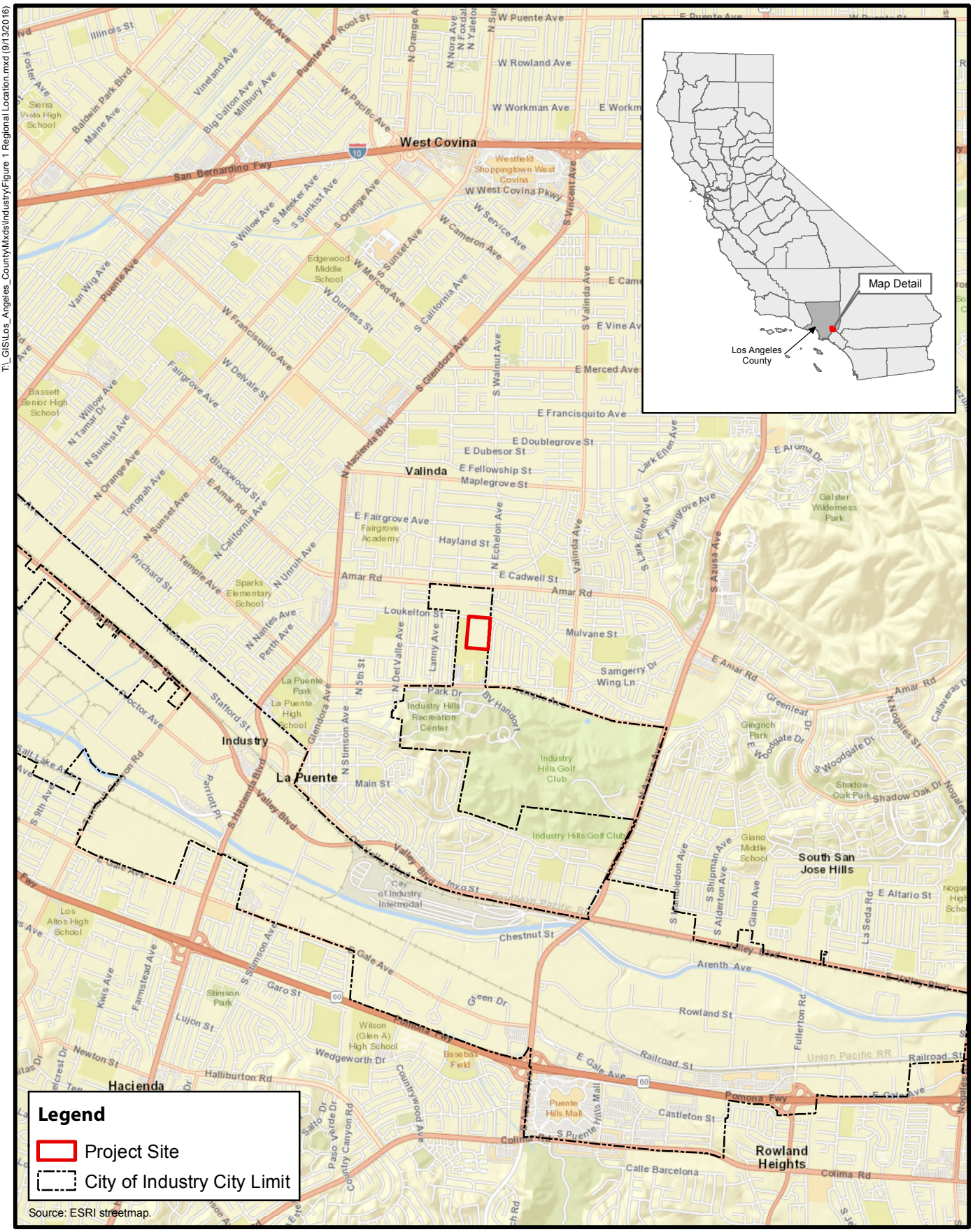
9. Surrounding land uses and setting (briefly describe the project's surroundings):

The project site is bounded by residential units to the east, William Workman High School athletic fields to the south and west with residential units farther toe the east beyond the athletic field, and industrial buildings to the north. Currently there is a single unoccupied residence on the northeast corner of the project site that will be demolished in order to facilitate construction of the project.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement)

- Los Angeles County Fire Department
- City of Industry Development Services Department
- Los Angeles County Building Department
- South Coast Air Quality Management District
- Los Angeles Regional Water Quality Control Board

T:_GIS\Los_Angeles_County\Mxds\Industry\Figure 1 Regional Location.mxd (9/13/2016)



0 2,000 4,000
Feet

FIGURE 1
Regional Location

Michael Baker INTERNATIONAL

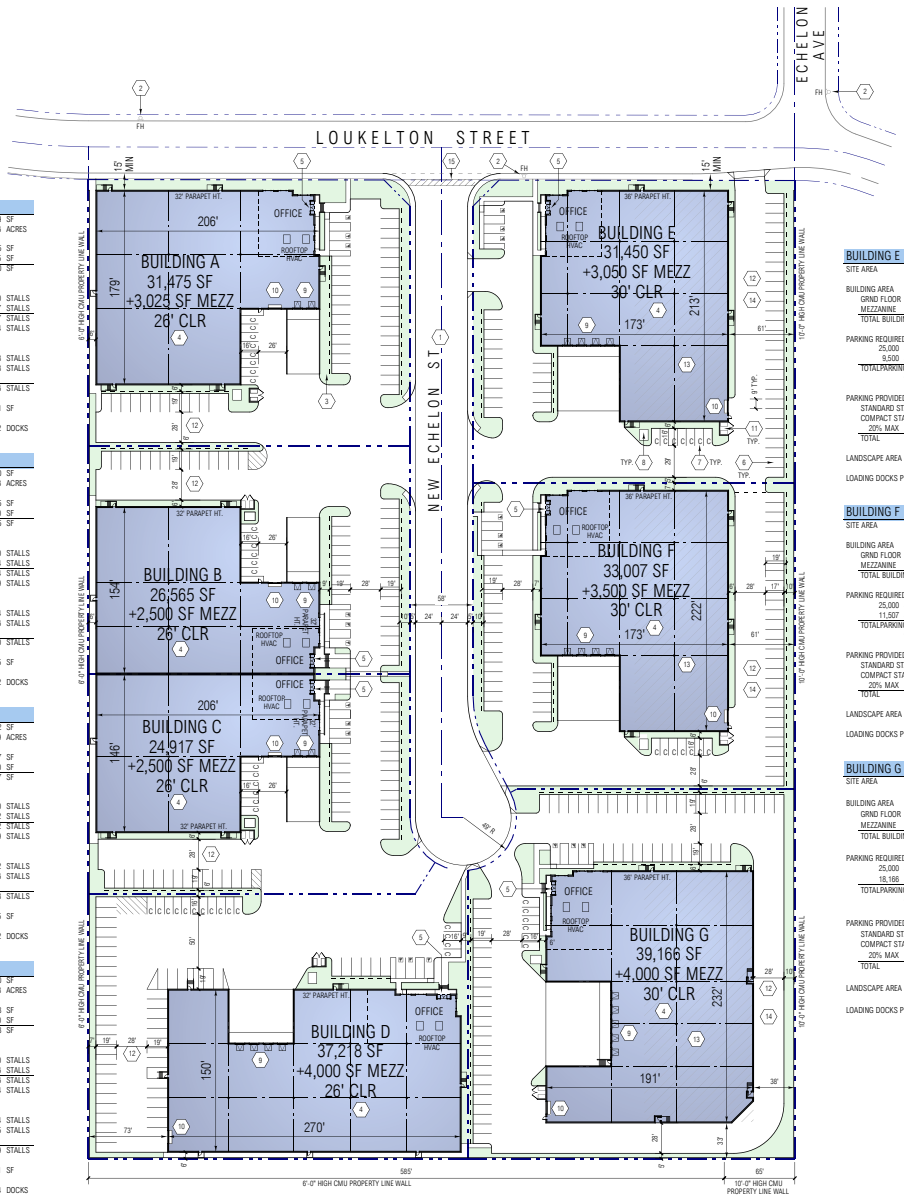
T:_GIS\Los_Angeles_County\Mxds\Industry\Figure 2 Site Vicinity.mxd (9/13/2016)

0 250 500
FEET

FIGURE 2
Site Vicinity

Michael Baker
INTERNATIONAL

T:_CS\Work\Industry, City of\Echelon\Figures



BUILDING A		
SITE AREA	72,139	SF
	1.66	ACRES
BUILDING AREA		
GRND FLOOR	31,475	SF
MEZZANINE	3,025	SF
TOTAL BUILDING	34,500	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50.0	STALLS
9,500 SF 25-100K SF @ 1/750	12.7	STALLS
TOTALPARKING REQUIRED	62.7	STALLS
90% PARKING REQUIRED	56.4	STALLS
PARKING PROVIDED		
STANDARD STALLS	48	STALLS
COMPACT STALLS	8	STALLS
20% MAX 14%		
TOTAL	56	STALLS
LANDSCAPE AREA	10,711	SF
LOADING DOCKS PROVIDED	2	DOCKS

BUILDING B		
SITE AREA	62,160	SF
	1.43	ACRES
BUILDING AREA		
GRND FLOOR	26,565	SF
MEZZANINE	2,500	SF
TOTAL BUILDING	29,065	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50.0	STALLS
4,065 SF 25-100K SF @ 1/750	5.4	STALLS
TOTALPARKING REQUIRED	55.4	STALLS
90% PARKING REQUIRED	49.9	STALLS
PARKING PROVIDED		
STANDARD STALLS	44	STALLS
COMPACT STALLS	6	STALLS
20% MAX 12%		
TOTAL	50	STALLS
LANDSCAPE AREA	7,325	SF
LOADING DOCKS PROVIDED	2	DOCKS

BUILDING C		
SITE AREA	60,472	SF
	1.39	ACRES
BUILDING AREA		
GRND FLOOR	24,917	SF
MEZZANINE	2,500	SF
TOTAL BUILDING	27,417	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50.0	STALLS
2,417 SF 25-100K SF @ 1/750	3.2	STALLS
TOTALPARKING REQUIRED	53.2	STALLS
90% PARKING REQUIRED	47.9	STALLS
PARKING PROVIDED		
STANDARD STALLS	42	STALLS
COMPACT STALLS	6	STALLS
20% MAX 13%		
TOTAL	48	STALLS
LANDSCAPE AREA	7,265	SF
LOADING DOCKS PROVIDED	2	DOCKS

BUILDING D		
SITE AREA	86,110	SF
	1.98	ACRES
BUILDING AREA		
GRND FLOOR	37,218	SF
MEZZANINE	4,000	SF
TOTAL BUILDING	41,218	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50.0	STALLS
16,218 SF 25-100K SF @ 1/750	21.6	STALLS
TOTALPARKING REQUIRED	71.6	STALLS
90% PARKING REQUIRED	64.4	STALLS
PARKING PROVIDED		
STANDARD STALLS	54	STALLS
COMPACT STALLS	15	STALLS
20% MAX 22%		
TOTAL	69	STALLS
LANDSCAPE AREA	7,811	SF
LOADING DOCKS PROVIDED	4	DOCKS

BUILDING E		
SITE AREA	82,060	SF
	1.88	ACRES
BUILDING AREA		
GRND FLOOR	31,450	SF
MEZZANINE	3,050	SF
TOTAL BUILDING	34,500	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50.0	STALLS
9,500 SF 25-100K SF @ 1/750	12.7	STALLS
TOTALPARKING REQUIRED	62.7	STALLS
90% PARKING REQUIRED	56.4	STALLS
PARKING PROVIDED		
STANDARD STALLS	49	STALLS
COMPACT STALLS	7	STALLS
20% MAX 13%		
TOTAL	56	STALLS
LANDSCAPE AREA	12,475	SF
LOADING DOCKS PROVIDED	4	DOCKS

BUILDING F		
SITE AREA	82,424	SF
	1.89	ACRES
BUILDING AREA		
GRND FLOOR	33,007	SF
MEZZANINE	3,500	SF
TOTAL BUILDING	36,507	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50.0	STALLS
11,507 SF 25-100K SF @ 1/750	15.3	STALLS
TOTALPARKING REQUIRED	65.3	STALLS
90% PARKING REQUIRED	58.8	STALLS
PARKING PROVIDED		
STANDARD STALLS	56	STALLS
COMPACT STALLS	7	STALLS
20% MAX 11%		
TOTAL	63	STALLS
LANDSCAPE AREA	11,522	SF
LOADING DOCKS PROVIDED	4	DOCKS

BUILDING G		
SITE AREA	99,535	SF
	2.29	ACRES
BUILDING AREA		
GRND FLOOR	39,166	SF
MEZZANINE	4,000	SF
TOTAL BUILDING	43,166	SF
PARKING REQUIRED		
25,000 SF 0-25K SF @ 1/500	50.0	STALLS
18,166 SF 25-100K SF @ 1/750	24.2	STALLS
TOTALPARKING REQUIRED	74.2	STALLS
90% PARKING REQUIRED	66.8	STALLS
PARKING PROVIDED		
STANDARD STALLS	67	STALLS
COMPACT STALLS	6	STALLS
20% MAX 8%		
TOTAL	73	STALLS
LANDSCAPE AREA	11,767	SF
LOADING DOCKS PROVIDED	5	DOCKS

Source: RGA, Office of Architectural Design

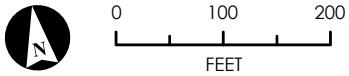
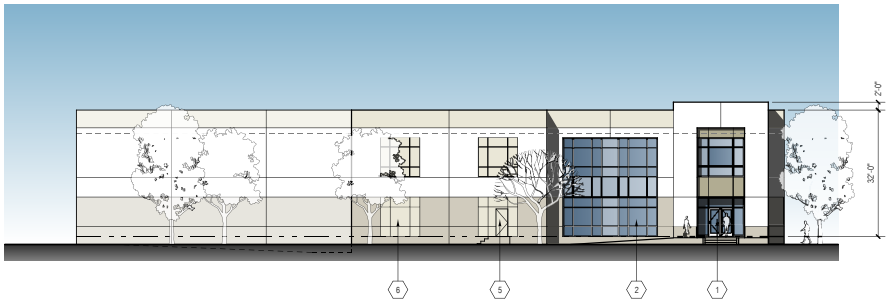


FIGURE 3
Site Plan

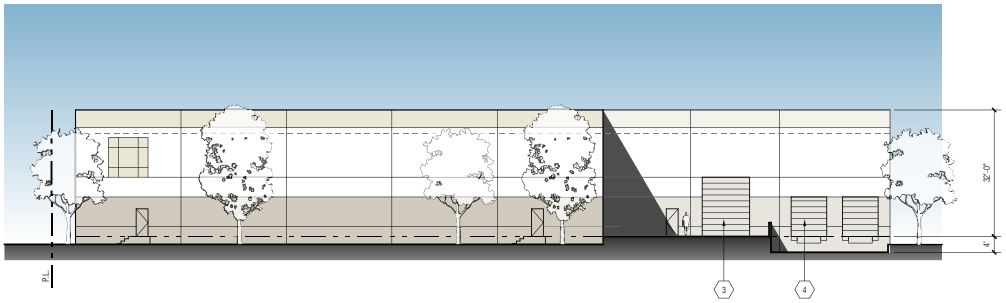
Michael Baker INTERNATIONAL

T:_CS\Work\Industry, City of\Echelon\FiguresT:_CS\Work\Industry, City of\Echelon\Figures



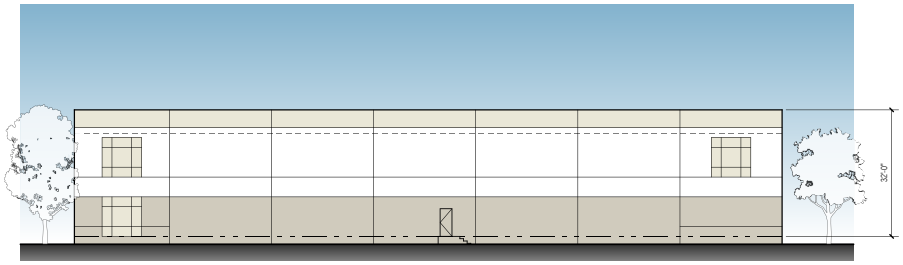
EAST ELEVATION - BUILDING A

SCALE: 1/16" = 1'-0"



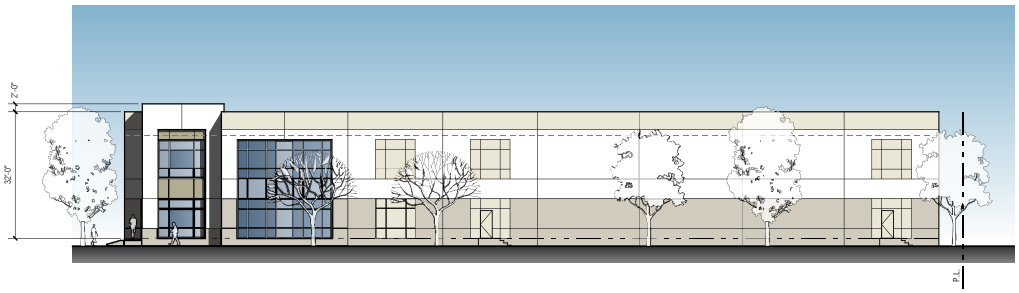
SOUTH ELEVATION - BUILDING A

SCALE: 1/16" = 1'-0"



WEST ELEVATION - BUILDING A

SCALE: 1/16" = 1'-0"



NORTH ELEVATION - BUILDING A

SCALE: 1/16" = 1'-0"

0' 10' 20' 40'

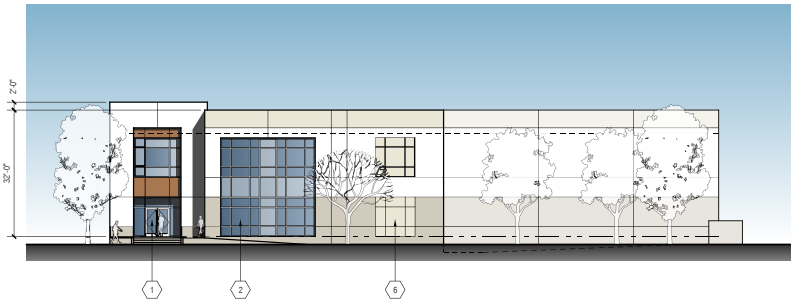
Source: RGA, Office of Architectural Design

FIGURE 4

Building A Elevations

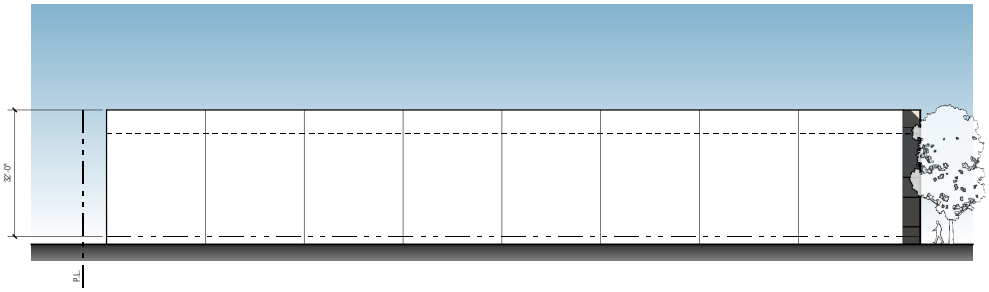
Michael Baker INTERNATIONAL

T:_CS\Work\Industry, City of\Echelon\FiguresT:_CS\Work\Industry, City of\Echelon\Figures



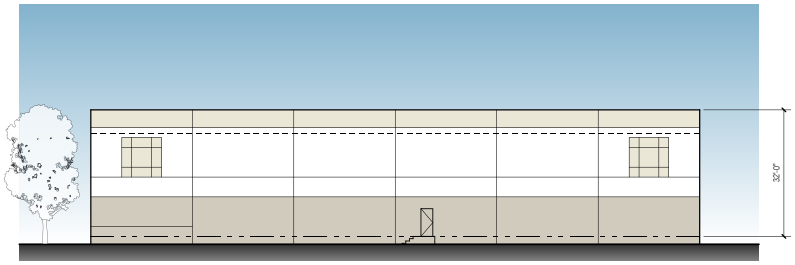
EAST ELEVATION - BUILDING B

SCALE: 1/16" = 1'-0"



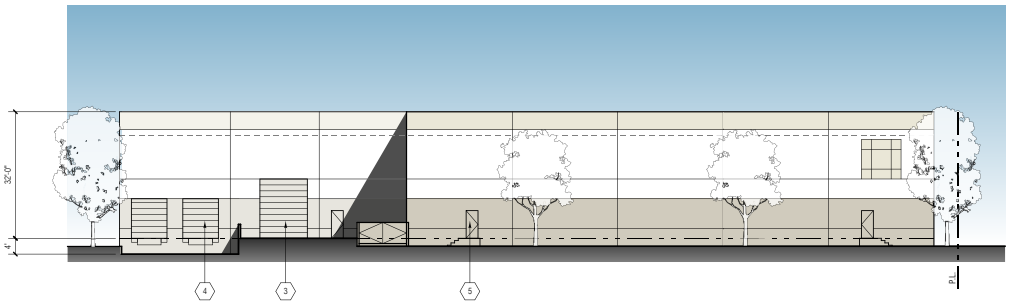
SOUTH ELEVATION - BUILDING B (ABUTTING BUILDING C)

SCALE: 1/16" = 1'-0"



WEST ELEVATION - BUILDING B

SCALE: 1/16" = 1'-0"



NORTH ELEVATION - BUILDING B

SCALE: 1/16" = 1'-0"

0' 10' 20' 40'

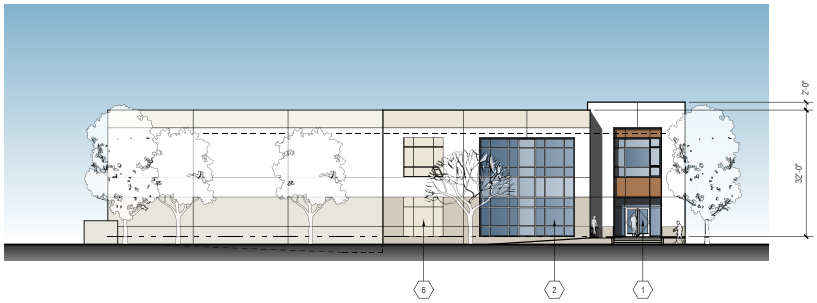
Source: RGA, Office of Architectural Design

FIGURE 5

Building B Elevations

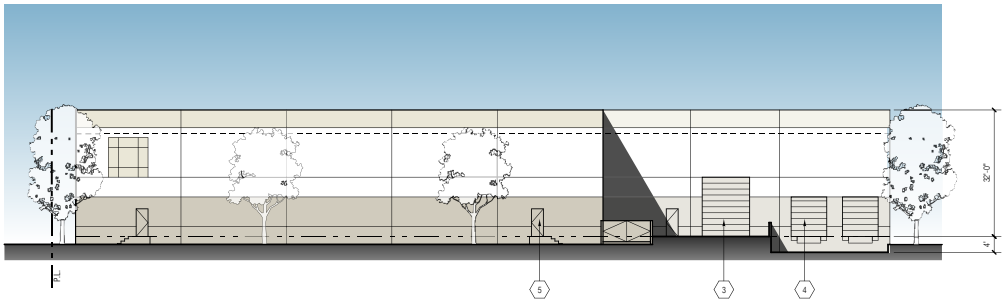
Michael Baker INTERNATIONAL

T:_CS\Work\Industry, City of\Echelon\FiguresT:_CS\Work\Industry, City of\Echelon\Figures



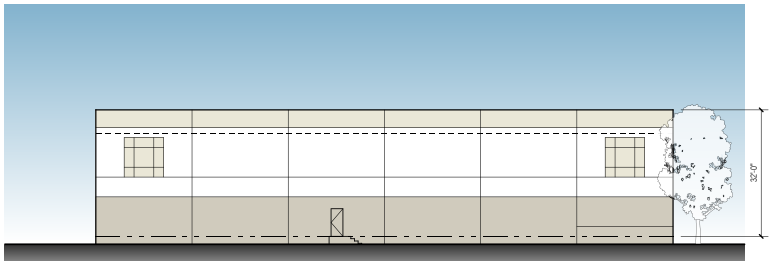
EAST ELEVATION - BUILDING C

SCALE: 1/16" = 1'-0"



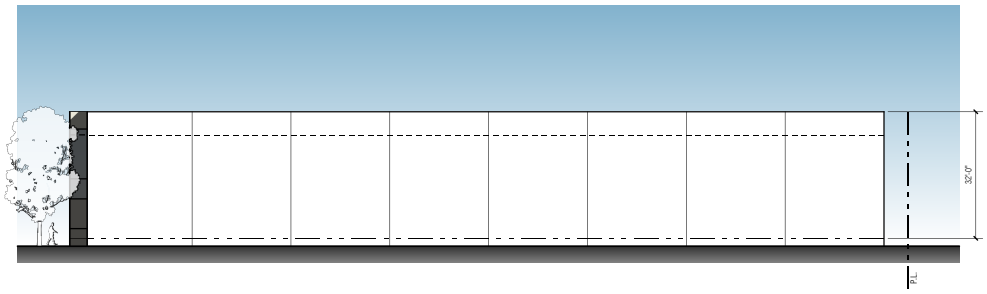
SOUTH ELEVATION - BUILDING C

SCALE: 1/16" = 1'-0"



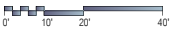
WEST ELEVATION - BUILDING C

SCALE: 1/16" = 1'-0"



NORTH ELEVATION - BUILDING C (ABUTTING BUILDING B)

SCALE: 1/16" = 1'-0"



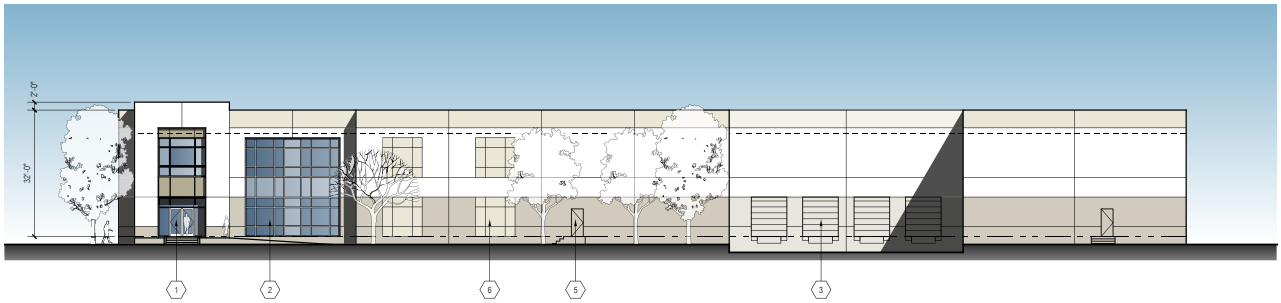
Source: RGA, Office of Architectural Design

FIGURE 6

Building C Elevations

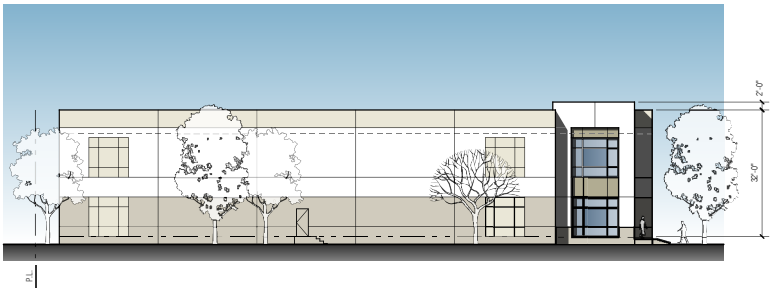
Michael Baker INTERNATIONAL

T:_CS\Work\Industry, City of\Echelon\FiguresT:_CS\Work\Industry, City of\Echelon\Figures



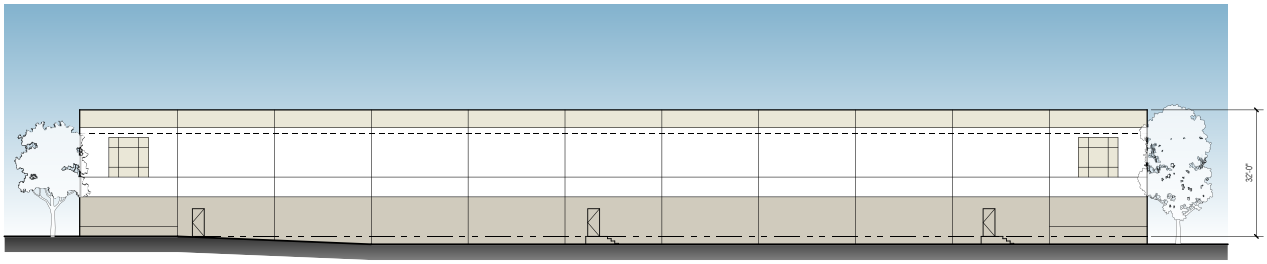
NORTH ELEVATION - BUILDING D

SCALE: 1/16" = 1'-0"



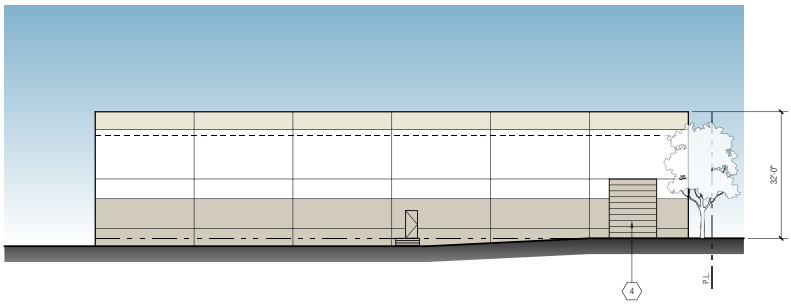
EAST ELEVATION - BUILDING D

SCALE: 1/16" = 1'-0"



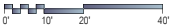
SOUTH ELEVATION - BUILDING D

SCALE: 1/16" = 1'-0"



WEST ELEVATION - BUILDING D

SCALE: 1/16" = 1'-0"



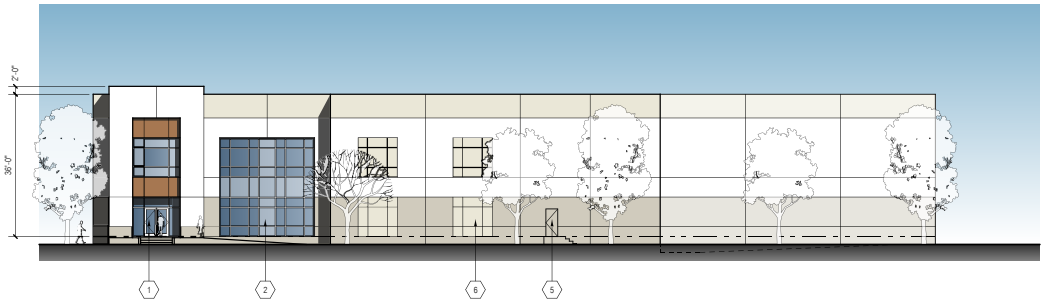
Source: RGA, Office of Architectural Design

FIGURE 7

Building D Elevations

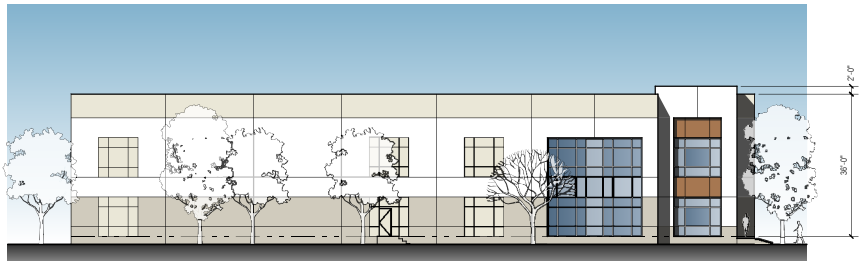
Michael Baker INTERNATIONAL

T:_CS\Work\Industry, City of\Echelon\FiguresT:_CS\Work\Industry, City of\Echelon\Figures



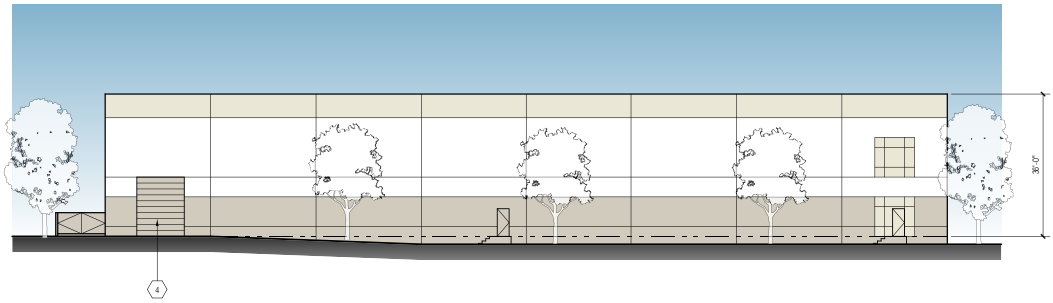
WEST ELEVATION - BUILDING E

SCALE: 1/16" = 1'-0"



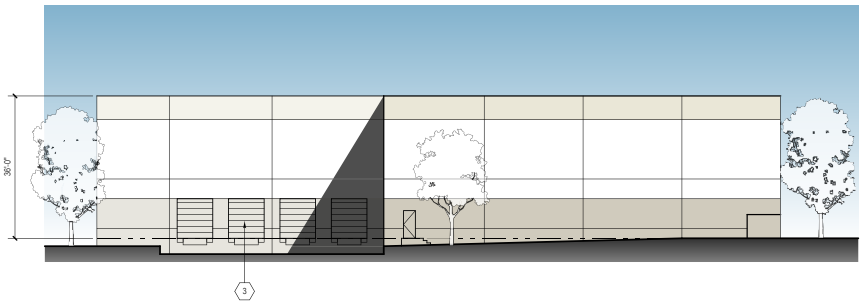
NORTH ELEVATION - BUILDING E

SCALE: 1/16" = 1'-0"



EAST ELEVATION - BUILDING E

SCALE: 1/16" = 1'-0"



SOUTH ELEVATION - BUILDING E

SCALE: 1/16" = 1'-0"

0' 10' 20' 40'

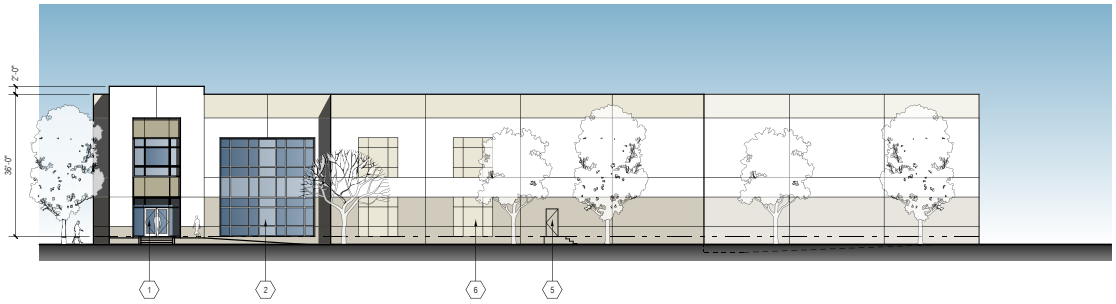
Source: RGA, Office of Architectural Design

FIGURE 8

Building E Elevations

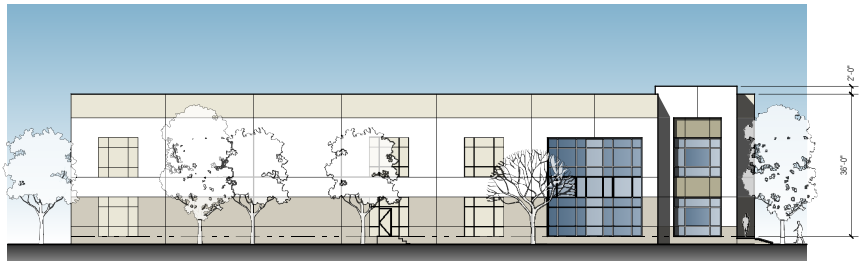
Michael Baker INTERNATIONAL

T:_CS\Work\Industry, City of\Echelon\FiguresT:_CS\Work\Industry, City of\Echelon\Figures



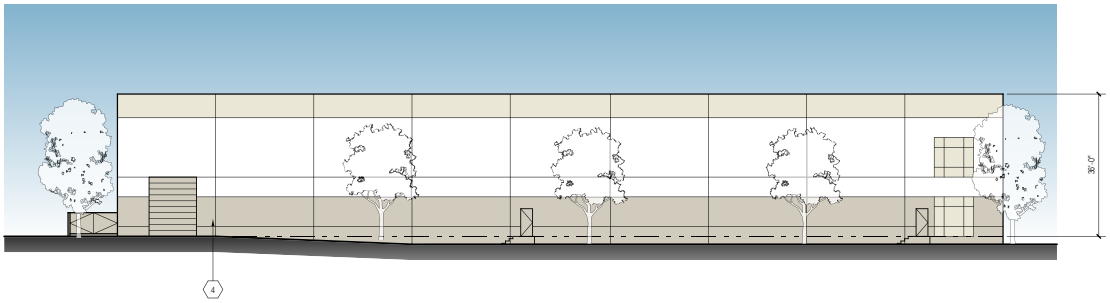
WEST ELEVATION - BUILDING F

SCALE: 1/16" = 1'-0"



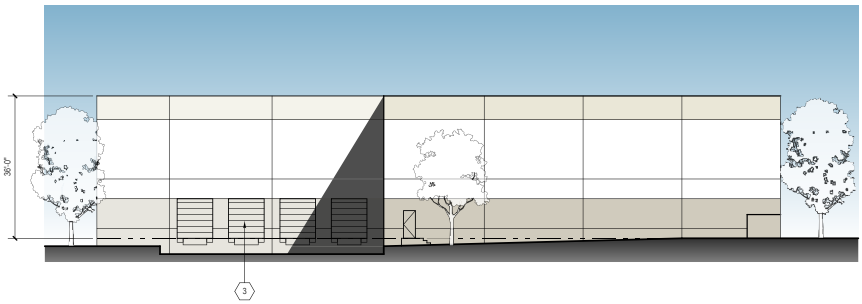
NORTH ELEVATION - BUILDING F

SCALE: 1/16" = 1'-0"



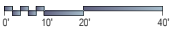
EAST ELEVATION - BUILDING F

SCALE: 1/16" = 1'-0"



SOUTH ELEVATION - BUILDING F

SCALE: 1/16" = 1'-0"



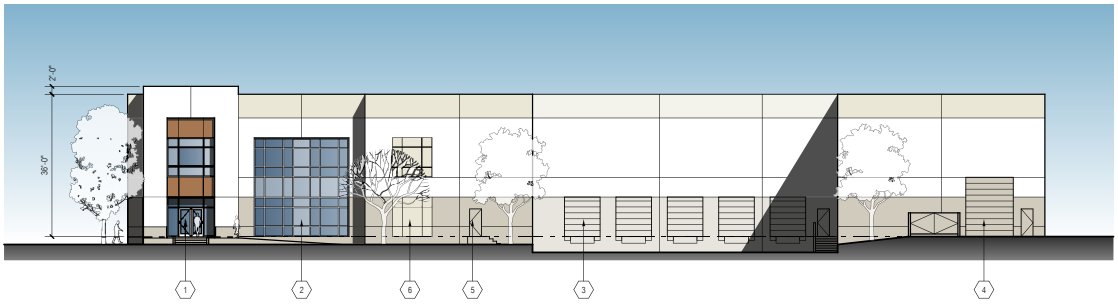
Source: RGA, Office of Architectural Design

FIGURE 9

Building F Elevations

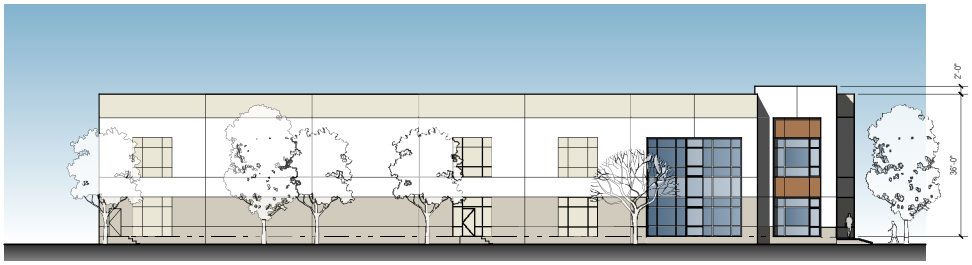
Michael Baker INTERNATIONAL

T:_CS\Work\Industry, City of\Echelon\FiguresT:_CS\Work\Industry, City of\Echelon\Figures



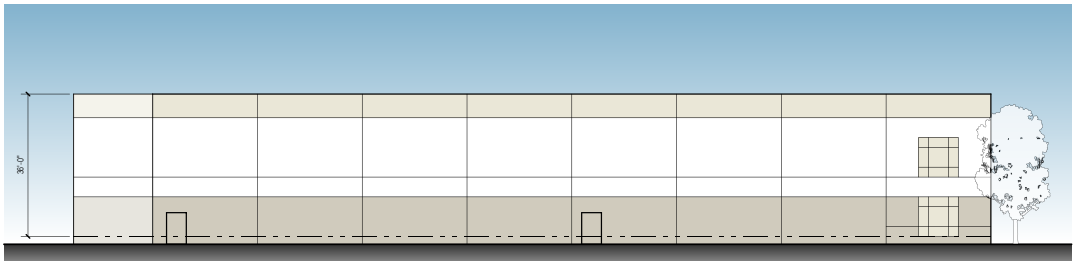
WEST ELEVATION - BUILDING G

SCALE: 1/16" = 1'-0"



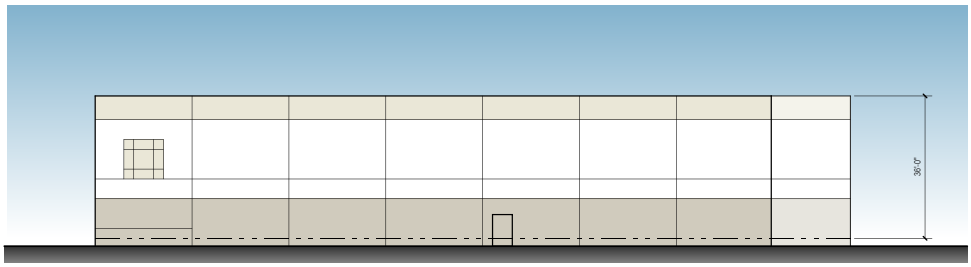
NORTH ELEVATION - BUILDING G

SCALE: 1/16" = 1'-0"



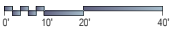
EAST ELEVATION - BUILDING G

SCALE: 1/16" = 1'-0"



SOUTH ELEVATION - BUILDING G

SCALE: 1/16" = 1'-0"



Source: RGA, Office of Architectural Design

FIGURE 10

Building G Elevations

Michael Baker INTERNATIONAL

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology and Soils
☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials	☐ Hydrology and Water Quality
☐ Land Use and Planning	☐ Mineral Resources	☐ Noise
☐ Population and Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities and Service Systems	☐ Mandatory Findings of Significance

DETERMINATION (to be completed by the lead agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date 9-19-16

Troy Helling
Printed Name

Senior Planner
Title

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

a) *No Impact*. The project site is situated in a highly urbanized area of the City of Industry. The nearest scenic vista is the San Gabriel Mountains. The project site is currently undeveloped and predominantly covered with short grass and occasional patches of dirt. The condition of the project site is disturbed, showing signs of eroding soils, and it does not contain any native vegetation. Currently, there is a single unoccupied residence on the northeast corner of the project site that will be demolished in order to facilitate construction. Each of the project's seven individual buildings is between 27,417 and 43,166 square feet in size and between 32 and 36 feet high. Buildings of this size will not affect the public's enjoyment of the view of the mountains. Therefore, no impact would occur.

b) *No Impact*. With the exception of the 2,800 square foot residential building, the project site consists of a vacant, undeveloped property in a fully urbanized part of the City of Industry and does not contain any scenic resources. The site is bounded by residential units to the east and west, William Workman High School to the south, and industrial buildings to the north. This site does not contain historic buildings, sensitive tree species, or rock outcrops. Additionally, the project site is not adjacent to or near a state scenic highway. The nearest officially designated state scenic highway is Interstate 210, which is alongside the San Gabriel Mountains over 7 miles to the north (Caltrans 2016). Therefore, no impact would occur.

c) *Less Than Significant Impact*. The project would not degrade the existing visual character or quality of the project site and its surroundings. The project site currently consists of an existing vacant dirt lot and an abandoned structure, and the height, mass, and design of the buildings would be similar to existing industrial buildings adjacent to the north side of the project site. Building materials and colors would be selected so that the buildings would not conflict or be incompatible with the existing character of the site surroundings. The project would be developed with a 10-foot-high concrete masonry wall along the eastern and southern perimeters to shield the warehousing operations from the residential uses to the east and the high school to the south. The western and northern perimeters would be developed with a 6-foot-high concrete masonry wall. As shown in **Figure 3**, landscaping would be provided along the northern perimeter and along the site parking. Landscaping would exceed City requirements and will be strategically planted to aesthetically enhance the street frontage and business park. Therefore, the impact to the visual character or quality of the site and its surroundings would be less than significant.

d) *Less Than Significant Impact With Mitigation Incorporated.*

Short Term

During the construction of the proposed project, a 10-foot-high wall will be incorporated into the easterly property line between the 10-foot-wide landscape buffer and the adjacent residential use. This wall will continue west along the south property line for approximately 65 feet and will serve to separate the uses, shielding line of sight, noise, and light.

Long Term

After completion, the proposed project would introduce new sources of light at the proposed project site, including exterior security lighting along the buildings, parking lot lighting, and wayfinding lighting. Light fixtures nearest the easterly property line will be at a limited height and/or shielded so that no direct light shines over the 10-foot-high wall on the east property line. Nighttime lighting would be installed to accommodate safety and security while minimizing impacts on surrounding areas. However, the new sources of lighting have the potential to increase nighttime light and glare in the project area.

The City of Industry ensures that the lighting of new developments is installed according to all applicable lighting requirements and guidelines through its Development Plan review process. All lighting would be designed, arranged, directed, or shielded to prevent excess illumination and light spillover onto adjoining land uses. Parking area lighting would be the minimum necessary to comply with the City's requirements and guidelines. In order to ensure that lighting impacts do not result in an adverse effect to the adjacent residential uses to the east, implementation of mitigation measure **MM AES-1** will be required to reduce potential impacts. In addition, building exteriors would not include significant amounts of glass or reflective construction materials that could impose distracting glare on residents and passersby. Therefore, with incorporation of mitigation measure **MM AES-1**, project impacts associated with light and glare are expected to be less than significant.

Mitigation Measures

MM AES-1 Prior to issuance of a building permit, the City of Industry Planning Department shall ensure that all exterior lighting is designed to minimize off-site glare. This may include, without limitation, the use of shielded or recessed lighting fixtures.

Timing/Implementation: *Prior to issuance of building permit*

Enforcement/Monitoring: *City of Industry Planning Department*

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forestland or conversion of forestland to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forestland to non-forest use?	☐	☐	☐	☒

a) *No Impact*. The project site has no agricultural resources and is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as mapped on the Important Farmland Finder maintained by the California Department of Conservation (2016). In addition, there are no agricultural uses in the vicinity of the site. Therefore, the proposed project would not convert farmland to nonagricultural uses and no impact would occur.

b) *No Impact*. The project site has no agricultural resources and is not zoned for agricultural use. The Williamson Act applies to parcels consisting of at least 20 acres of Prime Farmland or at least 40 acres of farmland not designated as Prime Farmland; the project site is not under a Williamson Act contract. Therefore, no impact would occur.

c) *No Impact*. The project site is in a fully urbanized area of the City of Industry and is not located within or adjacent to forestland or timberland. The site is zoned for industrial use. Project development would not change the zoning or result in the loss of forestland or the conversion of forestland to non-forest use. Therefore, no impact would occur.

d) *No Impact*. The project site is zoned for industrial use. There is no forestland on or near the project site, and no forestland would be converted to non-forest use. Therefore, no impact would occur.

e) *No Impact*. The proposed project site has no agricultural or forest resources and is not designated as Farmland, as mapped on the Important Farmland Finder maintained by the California Department of Conservation (2016). The proposed project would not convert Farmland to nonagricultural uses or forestland to non-forest use. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

a) *No Impact.* The project site is located in the South Coast Air Basin (SoCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of criteria pollutants for which the basin is in nonattainment (i.e., ozone (O_3), coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$)). These are considered criteria pollutants because they are three of several prevalent air pollutants known to be hazardous to human health. (An area designated as nonattainment for an air pollutant is an area that does not achieve national and/or state ambient air quality standards for that pollutant.)

In order to reduce emissions of criteria pollutants for which the SoCAB is in nonattainment, the SCAQMD adopted the 2012 Air Quality Management Plan (AQMP). The 2012 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The 2012 AQMP is a regional and multi-agency effort including the SCAQMD, the California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the US Environmental Protection Agency (EPA). The 2012 AQMP pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's 2016 Regional Transportation Plan/Sustainable Communities Strategy, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. (SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans.) The project is subject to the SCAQMD's Air Quality Management Plan.

Criteria for determining consistency with the AQMP are defined by the following indicators:

- Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

- Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP based on the years of project buildout phase.

The violations to which Consistency Criterion No. 1 refers are the California ambient air quality standards (CAAQS) and the national ambient air quality standards (NAAQS). As evaluated under Issue b) below, the project will not exceed the short-term construction standards or long-term operational standards and in so doing will not violate any air quality standards. Additionally, the analysis for long-term local air quality impacts shows that future carbon monoxide (CO) concentration levels along roadways and at intersections affected by project traffic will not exceed the 1-hour and 8-hour state CO pollutant concentration standards. Thus, the project would be consistent with the first criterion.

Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies and demonstrates that the applicable ambient air quality standards can be achieved within the time frames required under federal law. Growth projections from local general plans adopted by cities in the district are provided to SCAG, which develops regional growth forecasts that are used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in the City of Industry General Plan is considered to be consistent with the Air Quality Management Plan. The proposed project is consistent with the land use designation and development density presented in the City of Industry General Plan and therefore would not exceed the population or job growth projections used by the SCAQMD to develop the Air Quality Management Plan. Thus, no impact would occur, as the project is consistent with both criteria.

b) *Less Than Significant Impact With Mitigation Incorporated. As* discussed previously, the project site is located in the SoCAB. State and federal air quality standards are often exceeded in many parts of the basin. The project's potential short-term construction-period and long-term operational-period air quality impacts are discussed below.

<u>Construction Emissions</u>

The SCAQMD has established methods to quantify air emissions associated with construction activities, such as those generated by operation of on-site construction equipment, fugitive dust emissions related to grading and site work activities, and mobile (tailpipe) emissions from construction worker vehicles and haul/delivery truck trips. Emissions would vary from day to day, depending on the level of activity, the specific type of construction activity occurring, and, for fugitive dust, prevailing weather conditions.

Dust (PM_{10}) is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Fugitive dust emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). All development projects in Industry, including the proposed project, are subject to SCAQMD rules and regulations to reduce fugitive dust emissions and to mitigate potential air quality impacts per City of Industry General Plan Policy AQ 4.9 and

SCAQMD Rule 403 (Fugitive Dust). Rule 403 requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM_{10} suppression techniques are summarized below.

a. Portions of the construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized in a manner acceptable to the City.

b. All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.

c. All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.

d. The area disturbed by clearing, grading, earth moving, or excavation operations will be minimized at all times.

e. Where vehicles leave the construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.

f. Installation and utilization of a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

Impacts without mitigation assume compliance with applicable SCAQMD rules. The SCAQMD rules that are currently applicable during construction activity for this project include but are not limited to Rule 1113 (Architectural Coatings), Rule 431.2 (Low Sulfur Fuel), Rule 403 (Fugitive Dust), and Rule 1186/1186.1 (Street Sweepers). As such, credit for Rule 1113 and Rule 403 have been taken.

The estimated maximum daily construction emissions without mitigation are summarized in **Table AQ-1**. Under the assumed scenarios, emissions resulting from project construction would exceed criteria pollutant thresholds established by the SCAQMD for emissions of nitrogen oxides (NOx) (before mitigation).

TABLE AQ-1
MAXIMUM SHORT-TERM CONSTRUCTION EMISSIONS (POUNDS PER DAY) – WITHOUT MITIGATION

Construction Phase	Reactive Organic Gas	Nitrogen Oxide	Carbon Monoxide	Sulfur Oxide	Coarse Particulate Matter	Fine Particulate Matter
2017	47.19	118.09	73.26	0.14	10.47	6.89
2018	47.13	2.85	4.47	9.05E-03	0.60	0.31
Maximum Daily Emissions	**47.19**	**118.09**	**73.26**	**0.14**	**10.47**	**6.89**
SCAQMD Threshold	75	100	550	150	150	55
Exceed Threshold?	No	Yes	No	No	No	No

*Source: Urban Crossroads 2016a. See **Appendix A.***

The estimated maximum daily construction emissions with mitigation are summarized in **Table AQ-2**. Mitigation measure **MM AQ-1** is required to reduce the severity of the impact.

TABLE AQ-2
MAXIMUM SHORT-TERM CONSTRUCTION EMISSIONS (POUNDS PER DAY) – WITH MITIGATION

Construction Phase	Reactive Organic Gas	Nitrogen Oxide	Carbon Monoxide	Sulfur Oxide	Coarse Particulate Matter	Fine Particulate Matter
2017	47.19	98.22	73.01	0.14	8.56	5.19
2018	47.13	2.85	4.47 1	8.76E-03	0.60	0.31
Maximum Daily Emissions	**47.19**	**98.22**	**73.01**	**0.14**	**8.56**	**5.19**
SCAQMD Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

*Source: Urban Crossroads 2016a. See **Appendix A**.*

As shown in **Table AQ-2**, after implementation of the mitigation measure **MM AQ-1**, construction activity emissions would not exceed the numerical thresholds established by the SCAQMD for any criteria pollutants.

Construction-Related Localized Air Quality Impacts

Localized significant thresholds (LSTs) were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of the national or California ambient air quality standards. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in air quality impact analyses. This analysis makes use of methodology included in the SCAQMD Final Localized Significance Threshold Methodology (2008).

For this project, the appropriate Source Receptor Area (SRA) for the localized significant threshold on the SCAQMD look-up tables is the South San Gabriel Valley monitoring station (SRA 11). LSTs apply to carbon monoxide, nitrogen dioxide (NO_2), PM_{10}, and $PM_{2.5}$.

The SCAQMD-produced look-up tables are intended for projects less than or equal to 5 acres in size and provide standards for projects that are 1, 2, and 5 acres. **Table AQ-3** is used to determine the maximum daily disturbed acreage for purposes of modeling localized emissions. Based on **Table AQ-3**, the proposed project could actively disturb approximately 3.5 acres per day during site preparation and 5 acres per day during the grading phase of construction. Therefore, standards for 3.5 acres of site preparation will be extrapolated using the information provided from 1-, 2-, and 5-acre sites in the look-up table. Standards for 5 acres of grading will use the 5-acre standard listed in the look-up table.

TABLE AQ-3
MAXIMUM DAILY DISTURBED ACREAGE

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Site Preparation	Rubber-Tired Dozers	3	0.5	8	1.5
	Crawler Tractors	4	0.5	8	2
	Graders	0	0.5	8	0
	Scrapers	0	1	8	0
Total acres graded per day during Site Preparation					**3.5**
Grading	Rubber-Tired Dozers	1	0.5	8	0.5
	Crawler Tractors	2	0.5	8	1
	Graders	1	0.5	8	0.5
	Scrapers	3	1	8	3
Total acres graded per day during Grading					**5**

*Source: Urban Crossroads 2016a. See **Appendix A.***

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, persons with preexisting respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as sensitive receptors. The nearest sensitive receptors are William Workman High School and the single-family residential communities located adjacent to the project site. Notwithstanding, the methodology explicitly states, "It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters." Therefore, LSTs for receptors located at 25 meters were utilized in this analysis.

Table AQ-4 identifies the localized impacts at the nearest receptor location in the vicinity of the project site. Emissions during the site preparation and grading phases of construction activity would not exceed the applicable thresholds for any criteria pollutant with implementation of mitigation measure **MM AQ-1**.

TABLE AQ-4
LOCALIZED SIGNIFICANCE SUMMARY – ON-SITE CONSTRUCTION EMISSIONS (POUNDS PER DAY) – WITH MITIGATION

Construction Phase		NO_x	CO	PM_{10}	$PM_{2.5}$
On-Site Site Preparation Emissions	Maximum Daily Emissions (on-site)	27.16	30.44	8.08	4.9
	SCAQMD Localized Threshold	152	1,423	11	7
	Threshold Exceeded?	**No**	**No**	**No**	**No**
On-Site Grading Emissions	Maximum Daily Emissions (on-site)	87.77	91.12	11.8	6.64
	SCAQMD Localized Threshold	183	1,814	14	9
	Threshold Exceeded?	**No**	**No**	**No**	**No**

*Source: Urban Crossroads 2016a. See **Appendix A**.*

As shown in **Table AQ-4**, implementation of mitigation measure **MM AQ-1** would further reduce emissions to less than significant levels.

Operational Emissions

Operational activities associated with the proposed project will result in emissions of reactive organic gases (ROG), NO_X, CO, sulfur oxide (SO_X), PM_{10}, and $PM_{2.5}$. Operational emissions would be expected from area source emissions, energy source emissions, and mobile source emissions.

Operational-source emissions are summarized in **Table AQ-5**. As shown, project operational-source emissions would not exceed applicable SCAQMD regional thresholds of significance. Therefore, the impact would be less than significant.

TABLE AQ-5
LONG-TERM OPERATIONAL EMISSIONS (POUNDS PER DAY)

Emissions Source	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Summer Scenario						
Area Source Emissions	9.77	6.40E-04	2.50E-04	1.00E-05	2.50E-04	2.50E-04
Energy Source Emissions	0.07	0.61	0.51	3.64E-03	0.05	0.05
Mobile Emissions (Trucks)	2.26	30.85	23.48	0.12	4.57	1.55
Mobile Emissions (Passenger Cars)	1.02	1.38	18.84	0.07	5.92	1.59
Total	**13.12**	**32.84**	**42.83**	**0.19**	**10.54**	**3.19**
SCAQMD Threshold	55	55	550	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Scenario						
Area Source Emissions	9.77	6.40E-04	0.07	1.00E-05	2.50E-04	2.50E-04
Energy Source Emissions	0.07	0.61	0.51	3.64E-03	0.05	0.05
Mobile Emissions (Trucks)	2.30	32.14	24.91	0.12	4.57	1.55
Mobile Emissions (Passenger Cars)	1.03	1.53	17.34	0.06	5.92	1.59
Total	**13.17**	**34.28**	**42.83**	**0.18**	**10.54**	**3.19**
SCAQMD Threshold	55	55	550	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: Urban Crossroads 2016a. See **Appendix A**.*
VOC = volatile organic compounds

Operations Localized Significance Analysis

According to the SCAQMD localized significance threshold methodology, LSTs apply to the operational phase of a proposed project if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The Health Risk Assessment, discussed in Issue d) below, replaces the need to conduct an operational LST analysis.

c) *Less Than Significant Impact*. Projects could contribute to an existing or projected air quality exceedance because the SoCAB is currently in nonattainment for O_3, PM_{10}, and $PM_{2.5}$. With regard to determining the significance of the cumulative contribution from the project, the SCAQMD recommends that any given project's potential contribution to cumulative impacts be assessed using the same significance criteria as for project-specific impacts. Therefore, individual projects that do not generate operational or construction emissions that exceed the SCAQMD's daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the air basin is in nonattainment and would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. As previously noted, the project will not exceed the applicable SCAQMD regional thresholds for construction and operational-source emissions. As such, the project will result in a cumulatively less than significant impact.

d) *Less Than Significant Impact***.** The potential impact of toxic air pollutant emissions resulting from development on the project site was also considered. Sensitive receptors to toxic air pollutants can include uses such as long-term healthcare facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, childcare centers, and athletic facilities can also be considered sensitive receptors. As previously described, the nearest sensitive receptors are William Workman High School and the single-family residential communities located adjacent to the project site.

Diesel Particulate Matter

Since the project is expected to generate/attract diesel trucks, which emit diesel particulate matter (DPM), preparation of a Health Risk Assessment (HRA) is necessary. The HRA (Urban Crossroads 2016b) evaluates the health risk impacts to sensitive receptors (residents and schools) and adjacent workers associated with the development of the proposed project; more specifically, health risk impacts as a result of exposure to DPM as a result of heavy-duty diesel trucks accessing the site.

The mobile source HRA was prepared in accordance with the document titled Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis. Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of 10 persons per million as the maximum acceptable incremental cancer risk due to DPM exposure. This threshold serves to determine whether a given project has a potentially significant development-specific and cumulative impact. The 10 in one million standard is a very health-protective significance threshold. A risk level of 10 in one million implies a likelihood that up to 10 persons, out of one million equally exposed people, would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration.

The SCAQMD has published a report on how to address cumulative impacts from air pollution. In this report, the SCAQMD states (page D-3):

> ...the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR)

and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

The SCAQMD has also established non-carcinogenic risk parameters for use in health risk assessments. Noncarcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A hazard index less of than 1.0 means that adverse health effects are not expected. In this analysis, non-carcinogenic exposures of less than 1.0 are considered less than significant.

The results of the Health Risk Assessment of lifetime cancer risk and lifetime non-cancer risk from project-generated DPM emissions are listed in **Table AQ-6** for the project for the residential, worker, and schoolchild exposure scenarios.

TABLE AQ-6
SUMMARY OF RISK ATTRIBUTABLE TO THE PROJECT

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
70-Year Exposure (2018 to 2087)	Maximum Exposed Sensitive Receptor	1.56	10	No
40-Year Exposure (2018 to 2057)	Maximum Exposed Worker Receptor	0.09	10	No
9-Year Exposure (2018 to 2026)	Maximum Exposed Schoolchild	0.11	10	No
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
70-Year Exposure (2018 to 2087)	Maximum Exposed Sensitive Receptor	0.001	1.0	No
40-Year Exposure (2018 to 2057)	Maximum Exposed Worker Receptor	0.0003	1.0	No
9-Year Exposure (2018 to 2026)	Maximum Exposed Schoolchild	0.0005	1.0	No

*Source: Urban Crossroads 2016b. See **Appendix B**.*

As shown in **Table AQ-6**, all three scenarios would not exceed applicable lifetime cancer risk or hazard index thresholds of significance. Therefore, the impact would be less than significant.

Carbon Monoxide

An analysis of CO "hot spots" is needed to determine whether the change in the level of service (LOS) of an intersection as a result of the proposed project would have the potential to result in exceedances of the California or national ambient air quality standards (CAAQS or NAAQS). It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Vehicle emissions standards have become

increasingly more stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, carbon monoxide concentrations have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The analysis prepared for carbon monoxide attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the air basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the SoCAB are due to unusual meteorological and topographical conditions, and are not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, carbon monoxide modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans.

In the 1992 CO Plan, a CO hot-spot analysis was conducted for four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated were Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The analysis in the 1992 CO Plan did not result in a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the level of service in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be LOS E at peak morning traffic and LOS F at peak afternoon traffic. While this analysis was done in Los Angeles County, the traffic level needed to surpass the CO threshold can be and has been used throughout the state to determine whether a proposed project will result in a potential carbon monoxide impact.

The proposed project would not produce the volume of traffic required to generate a CO hot spot, in the context of the 2003 Los Angeles hot-spot study (Urban Crossroads 2016b). Consequently at project buildout, none of the intersections in the vicinity of the project site would have traffic volumes exceeding those at the intersections modeled in the 2003 AQMP, nor would there be any reason unique to the project area's meteorology to conclude that this intersection would yield higher CO concentrations if modeled in detail. The SoCAB has been designated as attainment for CO since 2007, and even very busy intersections do not result in exceedances of the CO standard. Historical air quality data show that existing CO levels for the project area and the general vicinity do not exceed either state or federal ambient air quality standards. The CO concentrations in the project area are much lower than the federal and state CO standards. The proposed project would not result in any significant increase in CO concentrations at intersections in the project vicinity. Therefore, project-related traffic would not significantly affect local CO levels under future year conditions, and the CO concentrations would be below the state and federal standards. No significant impact on local CO levels would occur. Pollutant emissions from project operation, calculated with the CalEEMod model, would not exceed the SCAQMD thresholds for any criteria pollutants. LSTs would not be exceeded by long-term emissions from project operation. Therefore, CO hot spots are not an environmental impact of concern for the proposed project. Localized air quality impacts related to CO emissions would be less than significant.

e) *Less Than Significant Impact.* Land uses generally associated with odor complaints include agricultural uses (livestock and farming), wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities.

The project does not contain land uses typically associated with emissions of objectionable odors. Potential odor sources associated with the proposed project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities, and the temporary storage of typical solid waste (refuse) associated with the proposed project's long-term operational uses. Standard construction requirements would minimize odor impacts resulting from construction activity. It should be noted that any construction odor emissions generated would be temporary, short term, and intermittent in nature, would cease on completion of the respective phase of construction activity, and would not affect a substantial number of people. It is expected that project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. The proposed project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odor impacts associated with the proposed project's construction and operations would be less than significant.

Mitigation Measures

MM AQ-1 During construction activities, the project applicant and/or its contractor shall ensure that all off-road diesel-fueled equipment (e.g., rubber-tired dozers, graders, scrapers, excavators, asphalt paving equipment, cranes, and tractors) is California Air Resources Board (CARB) Tier 3 Certified or better.[1]

Timing/Implementation: *Prior to ground disturbing activities*

Enforcement/Monitoring: *City of Industry Planning Department*

[1] *The Clean Air Act of 1990 directed the EPA to study, and regulate if warranted, the contribution of off-road internal combustion engines to urban air pollution. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the EPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the EPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 horsepower and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards.*

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a) *No Impact*. The project would change the existing disturbed site from short grass and dirt cover to pavement. However, there are no native habitats, sensitive natural communities, or riparian habitats on or in the vicinity. The project site is a designated industrial site, consistent with the highly urbanized and developed surrounding area that is also devoted primarily to industrial uses (Industry 2014a). Therefore, there would be no adverse impacts on candidate, sensitive, or special-status species, either directly or via modification of an existing habitat.

b) *No Impact*. Sensitive natural communities provide habitat for sensitive animal or plant species. No such communities exist on or in the vicinity of the project site. Riparian habitats are those occurring along the banks of rivers and streams. There are no riparian features on or adjacent to the project site. Therefore, no impact is anticipated.

c) *No Impact*. No wetlands or other waters of the United States are located on the site. Wetlands are defined by Section 404 of the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include area such as swamps, marshes, and bogs. There are no wetlands on or adjacent to the project site. No impact would occur.

d) *No Impact*. There are no waters or streams present on the site. Thus, the project would not impact native resident or migratory fish. Wildlife corridors are typically made up of undeveloped wildlife areas and open space between larger patches of wildlife habitat. The project site is vacant, undeveloped, with the exception of the vacant 2,800 square foot residential building, and surrounded by developed urban land uses. It does not contain or support wildlife habitat or nursery use and is not used for overland wildlife movement. No impact would occur.

e) *No Impact*. The project site and surrounding area do not contain biological resources that are protected by any local policies or ordinances, such as a tree preservation policy or ordinance. The City of Industry Municipal Code does not contain ordinances protecting trees or other biological resources on private property. No impact would occur.

f) *No Impact*. The project site is located in a developed, disturbed urban environment and is surrounded by contiguous development. It is not within an adopted habitat conservation plan area designated by the US Fish and Wildlife Service (2016) or within a natural community conservation plan area designated by the California Department of Fish and Wildlife (2016). Nor is the project site within an existing or proposed Significant Ecological Area (SEA) designated by the County of Los Angeles (LACDRP 2015). The nearest designated SEA is the Rio Hondo College Wildlife Sanctuary, which is located approximately 7 miles east of the project site. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

a) *No Impact*. Historical resources are buildings, structures, objects, sites, and districts of significance in history, archaeology, architecture, and culture. No built-environment historical resources were identified on the project site by the National Register of Historic Places, California Register of Historical Resources, or the City's General Plan. The site is entirely disturbed and primarily vacant, flat land. The only development on the project site is a vacant residence with no historical significance. Therefore, no impact would occur.

b) Less Than Significant Impact With Mitigation Incorporated. Section 15064.5(a)(3)(D) of the CEQA Guidelines generally defines archaeological resources as any resource that "has yielded, or may be likely to yield, information important in prehistory or history."

There are no known prehistoric or historic archeological sites on the project site. However, the project site would require excavation related to the development of the proposed project. Thus, construction of the project has a remote potential to encounter previously undiscovered archaeological resources, necessitating mitigation measure **MM CULT-1**. Compliance with mitigation measure **MM CULT-1** would ensure that implementation of the proposed project does not cause a substantial adverse change in the significance of an archaeological resource. Therefore, with mitigation incorporated, potentially significant impacts would be reduced to less than significant.

c) *Less Than Significant Impact With Mitigation Incorporated*. Construction activities associated with the proposed project have the potential to unearth undocumented resources and result in a significant impact. Therefore, the potential damage to or destruction of these resources would be a potentially significant impact. Thus, mitigation measure **MM CULT-2** is required. Compliance with mitigation measure **MM CULT-2** would ensure that implementation of the proposed project does not cause a substantial adverse change in the significance of an archaeological resource. Therefore, with mitigation incorporated, any impacts would be reduced to less than significant.

d) *Less Than Significant Impact*. No human remains are known to exist within the project site. Given the past ground disturbance and current condition of the site, it is very unlikely that any human remains would be uncovered during project construction. However, California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within a project site, disturbance of the site must halt until the county coroner has conducted an investigation into the circumstances, manner, and cause of any death, and recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she is required to contact, by telephone within 24 hours, the Native American Heritage Commission. The project applicant would be required to adhere to existing laws regarding the discovery of human remains; therefore, a less than significant impact would occur.

Mitigation Measures

MM CULT-1 If archaeological resources are encountered during project construction, all construction activities in the vicinity of the find must halt until an archaeologist certified by the Society of Professional Archeologists examines the site, identifies the archaeological significance of the find, and recommends a course of action. Construction cannot resume until the site archaeologist states in writing that the proposed construction activities will not damage significant archaeological resources.

Timing/Implementation: *During all ground-disturbing construction activities*

Enforcement/Monitoring: *City of Industry Planning Department and City Engineer*

MM CULT-2 If paleontological resources are encountered during project construction, all construction activities in the vicinity of the find must halt until a professional paleontologist examines the site, identifies the paleontological significance of the find, and recommends a course of action. Construction cannot resume until the site paleontologist states in writing that the proposed construction activities will not damage significant paleontological resources.

Timing/Implementation: *During all ground-disturbing construction activities*

Enforcement/Monitoring: *City of Industry Planning Department and City Engineer*

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

a)

i. *Less Than Significant Impact*. Fault rupture impacts can occur when a structure is situated on top of an active fault that produces surface displacement during an earthquake event. The project site is not located within an Alquist-Priolo Earthquake Fault Zone as delineated by the California Geological Survey, nor is it situated on or near any known active fault. Two potentially active faults, the San Jose and Whittier faults, are approximately 14 miles northeast and 16 miles northwest of the site, respectively (Industry 2014b). Potentially active faults are defined as those where surface rupture has occurred during the past 1,600,000 years. According to the City's General Plan Safety Element, no faults are known to occur within the project site. Because the known active and potentially active faults do not cross the site, project development would not expose people or structures to substantial hazards arising from surface rupture of a known active fault. Therefore, the likelihood of a surface

fault rupture occurring on this site is considered low. The potential for damage due to direct fault rupture is considered very remote. Compliance with the latest version of the California Building Code (see following response) would mitigate impacts related to seismic activity to an acceptable level, resulting in less than significant impacts.

ii. *Less Than Significant Impact*. Similar to the rest of Southern California, the project site is subject to ground shaking and potential damage in the event of seismic activity. Major active faults near the project site include the Whittier, Cucamonga, Chino, and Puente Hills faults (CGS 2010). More regionally, the San Andreas fault is capable of producing an earthquake that could cause significant damage at the site. Each of these faults is classified as active, with strong seismic capabilities. Lesser faults that are closer to the site include the Walnut Creek and San Jose faults. The expected ground-motion characteristics of future earthquakes in the region depend on the distance to the epicenter and magnitude of the earthquake, as well as the site's soil profile. Based on the available data, the impacts associated with ground shaking at the project site would not be greater than at other sites in seismically active Southern California.

The City of Industry's Building Regulations are found in Title 15 (Buildings and Construction) of the City's Municipal Code. Chapter 15.04 (Building Code) adopts the most recent version of the Los Angeles County Building Code by reference. The proposed project would be required to adhere to the provisions of the Los Angeles County Building Code, which are imposed on project developments during the City's building plan check and Development Plan review process. Compliance with the requirements of the County's Building Code for structural safety during a seismic event would reduce hazards from strong seismic ground shaking. Therefore, impacts would be less than significant.

iii. *Less Than Significant Impact*. Liquefaction occurs on unconsolidated, saturated sand or silt deposits that lose their load-supporting capability when subjected to intense shaking. Like much of the available land in the city, the project site is in an area that is underlain by unconsolidated sediments which include interbedded silts, sands, and gravel. The thickness of these unconsolidated sediments beneath the site has not been determined. Unconsolidated silts, sands, and gravel may produce surface cracking, differential settlement, and, depending on groundwater depth, liquefaction during high intensity seismic ground shaking.

The California Geological Survey, a branch of the California Department of Conservation, has a mandate to identify and map the state's most prominent earthquake hazards pursuant to the Seismic Hazards Mapping Act of 1990. These hazards include areas where earthquakes are likely to cause shaking, liquefaction, or ground failure. In 1999, the California Geological Survey updated existing seismic hazard maps for portions of Southern California, including the area that encompasses the City of Industry. The updated map that covers the project site (Baldwin Park 7.5-minute quadrangle) indicates that the site is in a state-mapped liquefaction zone, which is defined as follows per the California Department of Conservation (1999):

> Areas where historic occurrence of liquefaction or local geological, geotechnical, or groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Cities, counties, or another local permitting authority must regulate certain development "projects" within these seismic hazard zones. If a project site is in one of these zones, development permits must be withheld until the site's geological and soil conditions are

investigated and appropriate mitigation measures, if necessary, are incorporated into development plans.

Future workers or site visitors potentially could be subjected to impacts due to seismically induced liquefaction. However, the new structures proposed for the project site would be constructed in accordance with grading and engineering standards outlined in the Los Angeles County Building Code and the California Building Code, which would help safeguard the structures from liquefaction that might occur during future seismic events. Additionally, grading and soil compaction require the preparation of site-specific grading plans, soils and geotechnical reports (which must address liquefaction, subsidence, and other potential soil stability hazards), and hydrology studies, which are required to be submitted to the City for review and approval prior to the commencement of any grading activities. Based on the available information, impacts are anticipated to be less than significant.

iv. *No Impact*. As discussed above, the California Department of Conservation is mandated by the Seismic Hazards Act of 1990 to identify and map the state's most prominent earthquake hazards, including hazard areas that are at risk for earthquake-induced landslides. If a project site is located in one of the landslide hazard areas, the City of Industry is required to prepare a geotechnical report defining and delineating landslide hazards in the project area. Based on the Baldwin Park 7.5-minute quadrangle map (DOC 1999), the proposed project site is not in a mapped landslide hazard area and is not subject to landslide hazards. Moreover, the project site and the surrounding land are virtually flat. Therefore, no impact related to landslide hazards would occur.

b) *Less Than Significant Impact*. Erosion is the movement of rock fragments and soil from one place to another. Precipitation, running water, waves, and wind are all agents of erosion. Significant erosion typically occurs on steep slopes where stormwater and high winds can carry topsoil down hillsides. Erosion can be accelerated dramatically by ground-disturbing activities if effective erosion control measures are not used. The project site and the surrounding area are in a highly urbanized area that is virtually flat and contains minimal rises or changes in elevation. No major slopes or bluffs are on or adjacent to the site. Project construction would entail grading activities that would temporarily disturb surface soils on-site and potentially result in the erosion of exposed areas of soil. Since the project site is larger than 1 acre, it would be subject to National Pollutant Discharge Elimination System (NPDES) requirements. Under the NPDES, a stormwater pollution prevention plan (SWPPP) would be required, along with best management practices (BMPs) designed to prevent erosion and siltation during the project's construction phase.

The project applicant would also be required to adhere to the applicable provisions outlined in Chapter 13.16 (Storm Water and Urban Runoff Pollution Control) of the City of Industry Municipal Code, which contains requirements to preserve water quality and prevent erosion during construction. In particular, Section 13.16.070(C) requires that stormwater runoff control measures during construction be adequate to accomplish the following:

- Retain on-site sediments generated on or brought to the project site using treatment control or BMPs.
- Retain construction-related materials and wastes, spills, and residues at the project site and prevent discharges to the streets, municipal storm drain, receiving water, or adjacent properties.
- Contain non-stormwater runoff from equipment and vehicle washing at the project site.

- Control erosion from slopes and channels through the use of effective BMPs, such as limitation of grading during the wet season, inspection of graded areas during rain events, planting and maintenance of vegetation on slopes, and covering any slopes susceptible to erosion.

After project completion, the project site would be developed with buildings, parking areas, and landscape improvements and would contain minimal exposed soil. Properly designed drainage systems, irrigation controls, and landscaping would minimize the opportunity for soil erosion and the loss of topsoil. Adherence to the NPDES requirements, the stormwater pollution prevention plan and related BMPs, and the City's stormwater and urban runoff pollution regulations would result in a less than significant impact.

c) *Less Than Significant Impact*. Hazards related to liquefaction and landslides are addressed above. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The risk of lateral spreading at the project site is negligible because of the relatively flat terrain. In accordance with the City of Industry's requirements and the Los Angeles County Building Code, the project applicant would be required to prepare a geotechnical investigation prior to the issuance of grading permits. Compliance with recommendations in the geotechnical investigation for minimizing liquefaction hazards would also reduce hazards from lateral spreading.

The major cause of ground subsidence is withdrawal of groundwater. Groundwater levels in the Puente Subbasin of the San Gabriel Groundwater Basin, which underlies the project site, are managed by the Puente Basin Watermaster to avoid groundwater withdrawals exceeding recharges (RWD 2016). The project would not require direct groundwater withdrawal, nor would it involve or allow significant groundwater recharge.

Collapsible soils shrink upon being wetted, subjected to a load, or both. The project geotechnical investigation would include recommendations for grading and preparation of soil so that it is suitable for construction, including soil classification, compaction density, and moisture content. Compliance with such recommendations would reduce hazards from collapsible soils. Based on the foregoing, impacts related to lateral spreading, subsidence, and collapsible soils would be less than significant.

d) *Less Than Significant Impact*. Expansive soils, with respect to engineering properties, are soils that upon wetting and drying will alternately expand and contract, causing problems for foundations of buildings and other structures. The proposed project would be subject to established engineering standards regarding soil compaction and would include testing of soil samples for expansion potential as part of the geotechnical evaluation. Any actions to minimize hazards from expansive soils would be implemented during construction. Impacts would be less than significant.

e) *No Impact*. Development of the proposed project would not require the installation of a septic tank or alternative wastewater disposal system. The new buildings would be connected to the city's existing sewer system. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

a) *Less Than Significant Impact.* There is scientific consensus that the contribution of greenhouse gas (GHG) emissions into the atmosphere is resulting in the change of the global climate. The global average temperature is expected to increase relative to the 1986–2005 period by 0.3 to 4.8 degrees Celsius (°C) (0.5–8.6 degrees Fahrenheit [°F]) by the end of the twenty-first century (2081–2100), depending on future GHG emission scenarios (IPCC 2014). According to the California Air Resources Board (2012), temperatures in California are projected to increase 2.7°F above 2000 averages by 2050 and, depending on emission levels, 4.1–8.6°F by 2100. Physical conditions beyond average temperatures could be indirectly affected by the accumulation of GHG emissions. For example, changes in weather patterns resulting from increases in global average temperature are expected to result in a decreased volume of precipitation falling as snow in California and an overall reduction in snowpack in the Sierra Nevada. The Global Warming Solutions Act, also known as Assembly Bill (AB) 32, is a legal mandate requiring that statewide GHG emissions be reduced to 1990 levels by 2020.

Construction and operation of the proposed project would generate GHG emissions, with the majority of energy consumption and associated generation of GHG emissions occurring during the project's operation (as opposed to during its construction). During project construction, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHG emissions such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Furthermore, CH_4 is emitted during the fueling of heavy equipment. Operational activities associated with the proposed project will result in emissions of CO_2, CH_4, and N_2O from the following primary sources: area source emissions; energy source emissions; mobile source emissions; solid waste; and water supply, treatment, and distribution.

Area sources would result in GHG emissions generated from landscape maintenance equipment, which would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawn mowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain project landscaping.

Energy source GHG emissions are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHG emissions directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions.

GHG emissions would also result from mobile sources associated with the project. These mobile source emissions will result from the typical daily operation of motor vehicles by delivery companies, visitors, and employees. Project mobile source emissions are dependent on overall daily vehicle trip generation.

Industrial land uses would result in the generation and disposal of solid waste. Waste either is diverted from landfills through a variety of means, such as reducing the amount of waste generated, recycling, and/or composting or is disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material.

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water.

Thresholds of significance illustrate the extent of an impact and are a basis from which to apply mitigation measures. The City of Industry has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions. However, for the proposed project, the SCAQMD industrial threshold of 10,000 metric tons per year CO_2e is used as the significance threshold concerning project generation of GHG emissions. This threshold was prepared with the purpose of complying with the requirements of AB 32 and achieving the goals of the AB 32 Scoping Plan. The project would be considered to have a significant impact if the projected emissions would surpass 10,000 metric tons of CO_2e annually.

Emissions resulting from implementation of the proposed project have been quantified and the quantified emissions are compared with the SCAQMD greenhouse gas threshold. The anticipated GHG emissions during project construction and operation are shown in **Table GHG-1**.

TABLE GHG-1
TOTAL PROJECT GREENHOUSE GAS EMISSIONS (ANNUAL) (METRIC TONS PER YEAR)

Emissions Source	Total CO_2e
Annual construction-related emissions amortized over 30 years	34.36
Area	2.00E-02
Energy	897.61
Mobile (Trucks)	1,879.20
Mobile (Passenger Cars)	347.16
Waste	138.98
Water Usage	238.91
Total	**3,536.24**
SCAQMD Industrial Warehouse Project Threshold	10,000
Significant?	**No**

*Source: Urban Crossroads 2016c. See **Appendix C**.*

As shown in **Table GHG-1**, greenhouse gas emissions projected to result from both construction (amortized over 30 years) and operation of the proposed project would not exceed the SCAQMD greenhouse gas threshold of 10,000 metric tons of CO_2e per year. The impact is therefore considered less than significant.

b) *Less Than Significant Impact.* Although the City of Industry has not adopted a GHG reduction plan, the project would be below the SCAQMD's greenhouse gas threshold (see discussion above). Furthermore, as previously mentioned, AB 32 is the legal mandate requiring that statewide GHG emissions be reduced to 1990 levels by 2020. In addition, two Executive Orders, California Executive Order 5-03-05 (2005) and California Executive Order B-30-15 (2015), highlight GHG emissions reduction targets, though such targets have not been adopted by the State and remain only a goal of the Executive Orders. Specifically, Executive Order 5-03-05 seeks to achieve a reduction of GHG emissions of 80 percent below 1990 levels by 2050 and Executive Order B-30-15 seeks to achieve a reduction of GHG emissions of 40 percent below 1990 levels by 2030. Technically, a governor's Executive Order does not have the effect of new law but can only reinforce existing laws. For instance, as a result of the AB 32 legislation, the State's 2020 reduction target is backed by the adopted AB 32 Scoping Plan, which provides a specific regulatory framework of requirements for achieving the 2020 reduction target. The State-led GHG reduction measures, such as the Low Carbon Fuel Standard and the Renewables Portfolio Standard, are largely driven by the AB 32 Scoping Plan. Executive Orders S-0305 and B-30-15 do not have any such framework and therefore provide no emissions reduction mechanisms that can be applied to the analysis of land use projects for the purpose of meaningful emissions estimates. As a result of Executive Orders B-30-15 and 5-03-05, new legislation is proposed to establish post-2020 GHG reduction goals; however, no action on the legislation has been taken as of this writing (August 2016).

SCAG's 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted April 7, 2016, is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders in Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. The RTP/SCS establishes greenhouse emissions goals for automobiles and light-duty trucks for 2020 and 2035, and establishes an overall GHG target for the region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of Executive Orders 5-03-05 and B-30-15. The 2016 RTP/SCS contains over 4,000 transportation projects, including highway improvements, railroad grade separations, bicycle lanes, new transit hubs, and replacement bridges. These future investments were included in county plans developed by the six county transportation commissions and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding. In addition, the plan is supported by a combination of transportation and land use strategies that help the region achieve state GHG emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support the vital goods movement industry, and use resources more efficiently. The proposed project's consistency with the RTP/SCS goals is analyzed in detail in **Table GHG-2**. As shown in **Table GHG-1**, greenhouse gas emissions resulting from development-related mobile sources are a major source of emissions. Therefore, comparison to the RTP/SCS is an appropriate indicator of whether the proposed project would inhibit the post-2020 GHG reduction goals promulgated by the State.

TABLE GHG-2
CONSISTENCY WITH SCAG'S
REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY GOALS

SCAG Goals	Compliance with Goal
Goal 1: Align the plan investments and policies with improving regional economic development and competitiveness.	Not Applicable: This is not a project-specific policy and is therefore not applicable.
Goal 2: Maximize mobility and accessibility for all people and goods in the region.	Consistent: Improvements to the transportation network in Industry are developed and maintained to meet the needs of local and regional transportation and to ensure efficient mobility. A number of regional and local plans and programs are used to guide development and maintenance of transportation networks, including but not limited to: • Los Angeles County Congestion Management Program • Caltrans Traffic Impact Studies Guidelines • Caltrans Highway Capacity Manual • SCAG RTP/SCS
Goal 3: Ensure travel safety and reliability for all people and goods in the region.	Consistent: All modes of transit in Industry are required to follow safety standards set by corresponding regulatory documents. Pedestrian walkways and bicycle routes must follow safety precautions and standards established by local (e.g., City of Industry, County of Los Angeles) and regional (e.g., SCAG, Caltrans) agencies. Roadways for motorists must follow safety standards established for the local and regional plans.
Goal 4: Preserve and ensure a sustainable regional transportation system.	Consistent: All new roadway developments and improvements to the existing transportation network must be assessed with some level of traffic analysis (e.g., traffic assessments, traffic impact studies) to determine how the developments would impact existing traffic capacities and to determine the needs for improving future traffic capacities.
Goal 5: Maximize the productivity of our transportation system.	Consistent: The local and regional transportation system would be improved and maintained to encourage efficiency and productivity. The City's Public Works Department oversees the improvement and maintenance of all aspects of the public right-of-way on an as-needed basis. The City also strives to maximize productivity of the region's public transportation system (i.e., bus, bicycle) for residents, visitors, and workers coming into and out of Industry.
Goal 6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	Consistent: The reduction of energy use, improvement of air quality, and promotion of more environmentally sustainable development are encouraged through the development of alternative transportation methods, green design techniques for buildings, and other energy-reducing techniques. For example, development projects are required to comply with the provisions of the California Building and Energy Efficiency Standards and the Green Building Standards Code (CALGreen). The City also strives to maximize the protection of the environment and improvement of air quality by encouraging and improving the use of the region's public transportation system (i.e., bus, bicycle) for residents, visitors, and workers traveling into and out of Industry.
Goal 7: Actively encourage and create incentives for energy efficiency, where possible.	Not Applicable: This is not a project-specific policy and is therefore not applicable
Goal 8: Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	Consistent: See response to Goal 6.

SCAG Goals	Compliance with Goal
Goal 9: Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	Consistent: The City of Industry monitors existing and newly constructed roadways and transit routes to determine the adequacy and safety of these systems. Other local and regional agencies (i.e., Los Angeles County Transportation Department, Caltrans, SCAG) work with the City to manage these systems. Security situations involving roadways and evacuations would be addressed in the County of Los Angeles's emergency management plans (e.g., Los Angeles County Operational Area Emergency Operations Plan) developed in accordance with state and federally mandated emergency management regulations.

As shown in **Table GHG-2**, the proposed project does not conflict with the stated goals of the RTP/SCS. For these reasons, the proposed project would not interfere with SCAG's ability to achieve the region's post-2020 mobile source GHG reduction targets outlined in the 2016 RTP/SCS. Therefore, impacts associated with the proposed project's construction and operations would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

a) *Less Than Significant Impact*. The public and the environment could be exposed to hazardous materials during the construction and operational phases of the project, as discussed below.

Construction Phase

Project-related construction activities would require the use of hazardous materials such as fuels, lubricants, and greases in construction equipment and coatings used in construction. On-site construction equipment might require routine or emergency maintenance that could result in the release of oil, diesel fuel, transmission fluid, or other materials. However, the

materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard or environmental threat. These activities would also be short term or one time in nature.

Additionally, the use, transport, and disposal of hazardous materials during the project construction phase (estimated 12 months) would be required to conform to the laws and regulations of several federal, state, and local agencies, including the US Environmental Protection Agency (EPA), California Department of Toxic Substances Control (DTSC), California Occupational Safety and Health Administration (Cal-OSHA), California Department of Transportation (Caltrans), and Los Angeles County Fire Department (LACFD). Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that all potentially hazardous materials are handled in an appropriate manner, and would minimize the potential for safety or environmental impacts. For example, spills or leakage of petroleum products during construction activities are required to be immediately contained, the hazardous material identified, and the material cleaned up in a prescribed manner. Any contaminated waste encountered during construction is required to be remediated so that it does not pose a risk to construction workers or future occupants of the site.

Operational Phase

Although the tenants and activities of the new buildings have not been identified, warehouse operations typically involve the use of small amounts of hazardous materials in building and landscape maintenance (e.g., solvents, cleaning agents, paints, pesticides). When used correctly, these materials would not result in a significant hazard to surrounding uses. Additionally, depending on the nature of the warehouse operations, significant quantities of hazardous materials could be moved into and out of the warehouses and stored for various periods of time. Such activities would be governed by local, state, and federal laws and regulations of several agencies, including the EPA, DTSC, Cal-OSHA, Caltrans, and LACFD, to ensure that any such hazardous materials are used and handled in an appropriate manner. Businesses that store hazardous materials above minimum amounts are required to file a Business Plan with the LACFD which includes a materials inventory and an emergency response plan. Additionally, strict adherence to all emergency response plan requirements set forth by the City of Industry would be required during project operation. Routine use, transport, or storage of hazardous materials during the project's construction and operation would not cause significant hazards to the public or the environment.

b) *Less Than Significant Impact With Mitigation Incorporated*. The use, storage, and disposal of hazardous materials at the project site would comply with existing regulations of several agencies, as described above. Project construction and operational workers would be trained on the proper use, storage, and disposal of hazardous materials. Accidental leaks or spills of hazardous materials may occur during construction of the proposed project, which could potentially expose the public or the environment to hazardous materials. Compliance with applicable Cal/OSHA and DTSC regulations for the handling of hazardous materials and spill cleanup procedures would prevent significant hazards to the public and the environment. Construction phases would involve grading, paving, and building construction. Though not anticipated, construction activities for the proposed project could result in the exposure of construction personnel and the public to unidentified hazardous substances in the soil and/or groundwater. Exposure to unanticipated hazardous substances could also occur from previously unidentified soil contamination caused by migrating contaminants originating at nearby listed sites. Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during grading or excavation, the required construction activities could pose health and safety risks capable of resulting in various short- or long-term adverse health effects in exposed persons.

While it is anticipated that operation of the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment, this operational analysis presents the potential possibilities of such a risk.

The proposed project would include the use of and storage of common hazardous materials such as paints, solvents, and cleaning products. Additionally, grounds and landscape maintenance could use a variety of products formulated with hazardous materials, including fuels, cleaners, lubricants, adhesives, sealers, and pesticides/herbicides. The properties and health effects of different chemicals are unique to each chemical and depend on the extent to which an individual is exposed. The extent and exposure of individuals to hazardous materials would be limited by the relatively small quantities of these materials that would be stored and used on the project site. Because common maintenance products and chemicals would be consumed by use and with adherence to warning labels and storage recommendations from the individual manufacturers, these hazardous materials would not pose any greater risk than at any other similar development.

Implementation of mitigation measure **MM HAZ-1** and adherence to all federal, state, and local regulations would reduce potentially significant effects associated with the potential exposure of unknown hazardous materials through construction activities and operation of the proposed project to a less than significant level.

c) *Less Than Significant Impact.* The nearest sensitive receptors to exposure include residences located to the east and west of the project site and the students, faculty, and employees of the adjacent high school. Urban Crossroads (2016b) prepared a Health Risk Assessment (HRA) to determine whether toxic air emissions associated with operational activities at the facility (i.e., diesel truck emissions) could pose a risk to the nearby sensitive receptors. The HRA evaluated both carcinogenic and non-carcinogenic health risks, and as discussed in the assessment, project emissions impacts are not considered cumulatively considerable:

> The Project's maximum incremental contribution of 1.56 incidents per million population does not exceed the established SCAQMD threshold (10 incidents per million population) at which project-level TAC contributions would be determined cumulatively considerable. On this basis, the Project TAC emissions impacts are not considered cumulatively considerable.

If operational emissions from the project do not pose a risk to nearby sensitive receptors, there also would be no risk to sensitive receptors that are located at greater distances. With the results of the HRA considered, impacts would be less than significant.

d) *Less Than Significant Impact*. California Government Code Section 65962.5 specifies that the DTSC, California Department of Health Services, State Water Quality Control Board (SWRCB), and local enforcement agencies compile lists for various types of hazardous materials sites,

including hazardous waste facilities subject to corrective action, designated border zone properties, hazardous waste discharges to public land, public drinking water wells containing detectable levels of organic contaminants, underground storage tanks with reported unauthorized releases, and solid waste disposal facilities from which hazardous waste has migrated. The DTSC (2016) EnviroStor database does not identify any toxic or hazardous materials sites on or within 1,000 feet of the project site. The project will have a less than significant impact on the public and the environment related to hazardous materials sites.

e) *No Impact*. The project site is not located in an area covered by an airport land use plan or within 2 miles of a public airport or public-use airport. The nearest public airport is El Monte Airport, over 6 miles northwest of the site (Airnav 2016). Therefore, project development would not cause aviation-related hazards for people working in the project area and no impact would occur.

f) *No Impact*. Haddick's Towing operates a heliport approximately 1.75 miles southwest of the project site (Airnav 2016). The project site is currently zoned for industrial use, and project development would not exacerbate existing safety hazards associated with current operations at the heliport. Over congested areas, helicopters must maintain an altitude of at least 1,000 feet above the highest obstacle within 2,000 feet of the aircraft, except as needed for takeoff and landing (Code of Federal Regulations Title 14, Section 91.119). Helicopter takeoffs and landings at nearby heliports occur infrequently and are at a sufficient distance from the site that they would not pose a hazard to on-site workers. No impact would occur.

g) *Less Than Significant Impact*. The existing emergency response plan in Los Angeles County is the Operational Area Emergency Response Plan approved by the County Board of Supervisors in 1998. The ERP identifies county agencies and other entities that would be involved in emergency responses, threat summaries and assessments, and procedures for responding agencies and county agencies that would be involved in coordinating and managing responses.

Further assessments of potential hazards and county resources available for responding to hazards are in the County of Los Angeles All-Hazard Mitigation Plan (AHMP) adopted by the County Board of Supervisors in June 2005. The AHMP includes a vulnerability analysis for many types of hazards, including earthquakes, floods, fires, and man-made hazards such as terrorism and civil unrest; goals and objectives for strategies for mitigating hazards; proposed strategies and actions for reducing vulnerability to identified hazards; and lists of facilities and equipment available for responding to disasters.

The proposed project would be required to provide the necessary on- and off-site access and circulation improvements for emergency vehicles and services during the construction and operational phases, subject to City of Industry and LACFD approval. The project would be required to go through the City's Development Plan review and permitting process and would incorporate all applicable design and safety features in City and LACFD regulations necessary to accommodate local emergency services (adequate access roads, emergency exits, fire hydrants, etc.).

Furthermore, existing emergency access to surrounding properties would not be altered or disrupted under the proposed project, and off-site roadway modifications would not be necessary. The proposed project would not require full road closures or otherwise impact the functionality of surrounding roads that are used as public safety access routes. Therefore, the project would not impair implementation of or physically interfere with an emergency response plan, and the impact would be less than significant.

h) *No Impact*. The project site is in a highly urbanized and built-out area of the City of Industry. The project site is located in a fully developed urban area and is not located adjacent to or in the vicinity of wildland areas. Therefore, no significant risk of loss, injury, or death involving wildland fires would occur as a result of the proposed project.

Mitigation Measures

MM HAZ-1 In the event that soil or groundwater contamination is encountered which could present a threat to human health or the environment during construction in the project area, construction activities in the immediate vicinity of the contamination must immediately cease. If contamination is encountered, a Risk Management Plan must be prepared and implemented that (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development and (2) describes measures to be taken to protect workers and the public from exposure to potential site hazards. Such measures could include a range of options including, without limitation, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies must be notified (e.g., Los Angeles County Fire Department). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration (OSHA) requirements must be prepared and in place before commencement of work in any contaminated area.

Timing/Implementation: *During all ground-disturbing construction activities*

Enforcement/Monitoring: *City of Industry Planning Department and City Engineer*

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

a) *Less Than Significant Impact*. Impacts to water quality could potentially occur during the project's construction and operational phases, as discussed below.

Construction Phase

As part of Section 402 of the Clean Water Act, the EPA has established regulations under the National Pollutant Discharge Elimination System (NPDES) program to control direct stormwater discharges. The NPDES program regulates industrial pollutant discharges, which include construction activities. In California, the State Water Resources Control Board administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. In the Los Angeles metropolitan area, in which the City of Industry is located, the SWRCB is the permitting authority, while the Los Angeles Regional Water Quality Control Board (RWQCB) provides local oversight and permit enforcement. The project applicant would also be required to adhere to applicable provisions outlined in Chapter 13.16 (Storm Water and Urban Runoff Pollution Control) of the City of Industry Municipal Code. For example, Section 13.16.070 (Construction Activity Storm Water Measures) contains requirements related to stormwater during construction activity to preserve water quality and prevent erosion in the city.

Requirements for waste discharges potentially affecting stormwater from construction sites of 1 acre or more are set forth in the SWRCB's Construction General Permit, Order No. 2012-0006-DWQ, issued in 2012. The site is about 13.4 acres; therefore, project construction would be subject to the requirements of the Construction General Permit. Projects obtain coverage under the Construction General Permit by filing a Notice of Intent with the SWRCB prior to grading activities and by preparing and implementing a stormwater pollution prevention plan during construction. The primary objective of the SWPPP is to identify, construct, implement, and maintain best management practices to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site. The approved BMPs would be incorporated in the project grading and site plans; detail drawings and notes would provide specifications regarding size, capacity, and materials of construction. The following are the source control BMPs that are potentially applicable to this project according to the City's erosion control plan.

- Every effort should be made to eliminate the discharge of non-stormwater from the project site at all times.

- Eroded sediments and other pollutants must be retained on-site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses, or wind.

- Stockpiles of earth and other construction-related materials must be protected from being transported from the site by the forces of wind or water.

- Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.

- Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on-site until they can be disposed of as solid waste.

- Trash and construction-related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.

- Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.

- Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.

- Exposed subgrade soil shall be protected with gravel bags to reduce soil erosion.

Operational Phase

The primary constituents of concern during the project's operational phase would be solids, oils, and greases from parking areas, driveways, and truck loading bays that could be carried off-site. Project design features would address the anticipated and expected pollutants of concern during the project's operational phase. On-site landscaping, which comprises approximately 12.64 percent (68,876 square feet) of the total project site, would assist in minimizing the amount of runoff from the site by providing permeable areas for water infiltration and decreasing runoff volume. Infiltration through landscaped areas would also serve a water treatment function. The project would include features such as curbs, gutters, roof drains, pervious pavers with infiltration trenches, new public storm drains, catch basins with filter inserts, and private drainage pipes. The project would also include source control BMPs to properly manage stormwater flow and prevent stormwater pollution by reducing the potential for contamination at the source.

Requirements for waste discharges potentially affecting stormwater from project operations are set forth in the City of Industry's Ordinance No. 683, adopted on August 8, 2002, which implements the Los Angeles Countywide Standard Urban Stormwater Mitigation Plan (SUSMP) adopted by the Los Angeles RWQCB by Resolution No. R-00-02, as modified by the SWRCB's Order WQ 2001-11 and RWQCB Order No. R4-01-182. Ordinance No. 683 is incorporated in its entirety as Chapter 13.17 (Standard Urban Stormwater Mitigation Plan Implementation) of the City of Industry Municipal Code. SUSMP requirements include minimizing stormwater pollutants and limiting peak post-project stormwater runoff rates to no greater than predevelopment rates where increased runoff could increase downstream erosion.

Municipal Code Chapter 13.16.070(A)(5) applies to new development involving parking lots of 5,000 square feet or more or having 25 or more parking spaces and potentially exposed to stormwater runoff. The proposed project would be subject to the code requirements. As part of the permitting process, such facilities are required to comply with stormwater BMPs listed in the Standard Urban Stormwater Mitigation Plan or the BMP Guidebook prepared or recommended by the City Engineer. BMPs designed to protect against impacts to water quality would be incorporated in a project-specific SUSMP submitted to the City of Industry staff for review and approval as part of the Development Plan review process. The approved BMPs would be incorporated in the project grading and site plans; detail drawings and notes would provide specifications regarding size, capacity, and materials of construction.

BMPs for similar warehouse development projects in the city have incorporated continuous deflection separation (CDS) units to screen and separate debris, oil, and other pollutants from stormwater runoff prior to discharge to the storm drain. Following construction, the City of Industry typically assumes responsibility for the operation and maintenance of the CDS units through an agreement with the property owner. This provides assurance that the units are properly maintained and continue to function as designed. Proper maintenance of

stormwater control systems would also be governed by the City's Municipal Code. For example, Section 13.16.060(A) requires that persons who operate parking lots with more than 25 spaces exposed to stormwater "use BMPs to reduce the discharge of pollutions to the maximum extent practicable. Such measures may include regular sweeping or other measures, if effective."

Through the Development Plan site review process, the City of Industry would ensure that the project complies with various statutory requirements necessary to achieve regional water quality objectives and protect groundwater and surface waters from pollution by contaminated stormwater runoff. Compliance with City Municipal Code Chapter 13.17 and BMPs approved by the City Engineer would ensure that water quality impacts from project operations are less than significant.

b) *Less Than Significant Impact*. The project site is located above the Puente Subbasin of the San Gabriel Groundwater Basin. Groundwater levels in the subbasin are managed by the Puente Basin Watermaster to avoid groundwater withdrawals exceeding recharges. The Rowland Water District (RWD) would provide water to the project development. Nearly 20 percent of the RWD's water supply comes from groundwater that is pumped from wells in the Puente Subbasin; the remaining 80 percent comes from imported water (RWD 2016). The RWD projects that the service area would use 1,200 acre-feet of water per year from the Puente Subbasin in 2020 (RWD 2016). Groundwater would account for about 6 percent of the projected water supply in 2020. Based on the 2020 projections, about 6 percent of that total, or about 2,572 gallons per day, would be from local groundwater, which translates to about 0.24 percent of the projected groundwater demand in 2020. This incremental additional water demand would not significantly impact groundwater supplies or levels.

The project site is not used for intentional groundwater recharge, and the project's construction and operation would have little impact on local groundwater recharge. The landscaped areas could provide opportunities for minor amounts of local groundwater recharge via percolation, and site pavement would impede percolation; however, such changes would not affect regional groundwater levels or supplies.

c) *No Impact*. At project completion, the entire site would be developed with seven industrial buildings, pavement, and landscaping. As such, there would be little opportunity for site drainage to result in substantial on- or off-site erosion or siltation. During project construction, implementation of best management practices in accordance with the project SWPPP and compliance with City of Industry regulations for stormwater control would minimize the possibility for erosion from the site. The project would not result in the alteration of any watercourse near the site. Therefore, no impact would occur.

d) *Less Than Significant Impact*. To ensure that the stormwater runoff anticipated from the site is properly controlled, the project applicant would be required to adhere to applicable provisions outlined in City of Industry Municipal Code Chapter 13.16, which implements the Los Angeles Countywide SUSMP, as explained in Issue a) above. As part of the permitting process, the project would be required to comply with stormwater best management practices listed in the Standard Urban Stormwater Mitigation Plan or the BMP Guidebook prepared by the City Engineer. BMPs designed to protect against flooding would be incorporated in a project-specific SUSMP submitted to City of Industry staff for review and approval as part of the Development Plan review process. The project-specific SUSMP would contain supporting hydrologic calculations and infiltration studies to demonstrate that any increase in stormwater runoff from the site does not exceed the carrying capacity of the local storm drain system, consistent with City of Industry Municipal Code Chapter 13.16. The approved BMPs would be

incorporated in the project grading and site plans; detail drawings and notes would provide specifications regarding size, capacity, and materials of construction.

Compliance with City Municipal Code Chapter 13.16 and BMPs approved by the City Engineer during the Development Plan review process would ensure that impacts related to stormwater runoff volumes and potential flooding are less than significant.

e) *Less Than Significant Impact*. Project impacts related to stormwater control and management are addressed in Issue d) and would be less than significant. Project impacts related to the quality of stormwater runoff are addressed in Issue a) and would be less than significant.

f) *Less Than Significant Impact*. Project impacts related to water quality are addressed in Issue a) and would be less than significant.

g) *No Impact*. The proposed project does not involve construction of any housing units. Furthermore, a flood hazard map prepared by the Federal Emergency Management Agency (FEMA 2008) indicates that the project site is in Zone X, which does not include designated 100-year and 500-year flood zones. Therefore, no impact would occur.

h) *No Impact*. As stated above, the project site is not within a 100- or 500-year flood hazard area (FEMA 2008). Development of the proposed project would not impede or redirect flood flows, since there is no potential for flood flows to travel through or near the project site. Therefore, no impact would occur.

i) *No Impact*. Four dams—Puddingstone Dam, Santa Fe Dam, Thompson Creek Dam, and Whittier Narrows Dam—have been identified in the San Gabriel River watershed upstream from the City of Industry. The project site is not located in the flood inundation areas associated with the failure of any of these dams (Industry 2014a). No impacts are associated with flooding as a result of the failure of a levee or dam.

j) *No Impact*. A seiche is a surface wave created when a body of water is shaken, usually by earthquake activity. Seiches are of concern relative to water storage facilities, because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. Although there are no large water tanks in the area that could impact the project site, there are dams in the region that could create flooding impacts. However, as noted above, the project site is not located in an identified flood inundation area due to dam failure, and no impact would occur. Tsunamis are a type of earthquake-induced flooding that is produced by large-scale sudden disturbances of the sea floor. Tsunamis interact with the shallow sea floor topography upon approaching a landmass, resulting in an increase in wave height and a destructive wave surge into low-lying coastal areas. The project site is approximately 20 miles inland from the Pacific Ocean and at an approximate elevation of 380 feet above mean sea level; thus, impacts from tsunamis are considered negligible and no impact would occur. Mudflows are landslide events in which a mass of saturated soil flows downhill as a very thick liquid. The project site and surroundings are relatively flat and contain no abrupt changes in elevation. As indicated in subsection VI, Geology and Soils, the site is not in a mapped landslide hazard area. Additionally, there are no substantial slopes on or in the immediate vicinity of the site with the potential to result in mudflow impacts. In the absence of slopes, the potential for mudslides to affect the proposed project is considered negligible, and no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

a) *Less Than Significant Impact*. The project site is in an existing industrial area of the City of Industry. North of the site is an established industrial area with similar warehouse buildings. Adjacent to the east and west of the project site are residences and on the south is a high school. Construction of the proposed industrial office buildings would constitute infill of the area with a compatible land use development and would not physically divide or encroach upon the surrounding established community. Therefore, the impact would be less than significant.

b) *No Impact*. The existing zoning for the project site is Industrial and the General Plan land use designation is Industrial. The proposed development of the site with industrial/ warehouse buildings would be consistent with the General Plan and zoning. Project implementation would not change existing land uses or require a change of the existing land use designations or regulations. Due to the largely industrial character of the site's surroundings, the proposed project would not conflict or be incompatible with the existing character of the surrounding area. Because the project would not conflict with any applicable land use plan, policy, or regulation, no impact would occur.

c) *No Impact*. As previously discussed in subsection IV, Biological Resources, the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approval local, regional, or state habitat conservation plan. Thus, the project would have no impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

a) *No Impact*. The project does not involve the loss of an available known mineral resource that would be of value to the region. There are no lands within the City of Industry designated by the State Mining and Geology Board as being of regional or statewide significance (Industry 2014a). As such, no impact would occur.

b) *No Impact*. The project site is not designated as a mining site in the City of Industry General Plan (Industry 2014a), and the project would not cause a loss of availability of a designated mining site. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, exposure of people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

NOISE FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear (A-weighted decibels or dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted for understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.

- A 10 dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Mobile transportation sources, such as highways, and hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance from the source. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source (EPA 1971).

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise, but are less effective than solid barriers.

CRITERIA FOR ACCEPTABLE NOISE EXPOSURE

The majority of residential uses that would potentially be impacted by the proposed project are located to the east and west of the project site, in La Puente. The City of La Puente does not employ quantitative noise level limits as part of its code. Rather, the regulations are more in terms of disturbance and noise nuisances, which are discussed in Chapter 4.34 of the City of La Puente Municipal Code. Subsequent sections of this chapter indicate that this general standard is intended to control noise sources such as (private) radios, band rehearsals, engine repair, automobile testing, loading activities, animals, leaf blowers, and loud parties. Since the City of La Puente has no numerical noise level standards, for the purpose of CEQA analysis for projects in the city, the noise standards identified below will be used herein as significance thresholds for noise.

City of Industry General Plan

The City's (2014a) General Plan Safety Element discusses existing noise sources and noise assessment and modeling strategies. The stated goal is "an environment where noise does not adversely affect sensitive land uses," which is supported by Safety Element Policies S6-1 through S6-3. The City has adopted the State Noise Compatibility Guidelines, depicted as Table 4 in the Safety Element, to guide development and compatible land uses. General Plan land use compatibility standards are intended to help ensure that incompatible land uses are not located near one another. For noise compatibility in particular, the acceptability of proposed future developments is primarily determined by the future noise level anticipated on a site and the type of existing or proposed land use on that site. In the project area, transportation-related noise is the primary concern; therefore, the analysis for land use compatibility addresses traffic noise impacts resulting from the proposed project.

The project site is bounded by single-family residential units to the east and west, William Workman High School to the south, and industrial buildings to the north. As identified in Table 4 of the City's Safety Element, the normally acceptable ambient noise environment for single-family residential ranges from 50–60 dBA CNEL (Community Noise Equivalent Level, a 24-hour average noise measurement with a 5 dBA "weighting" during the hours of 7:00 to 10:00 PM and a 10 dBA "weighting" added to noise during the hours of 10:00 PM to 7:00 AM to account for noise sensitivity

in the evening and nighttime). The normally acceptable ambient noise environment ranges from 50 to 70 dBA CNEL for schools and from 50 to 75 dBA CNEL for industrial land uses.

For purposes of this analysis, a substantial increase in noise levels is defined as an increase of 5.0 dB, or greater, where the noise levels, without project implementation, are within the General Plan's "normally acceptable" noise standard. Where the noise level, without project implementation, exceeds applicable noise standards, an increase of 3.0 dB, or greater, would be considered a substantial increase.

City of Industry Municipal Code

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the City of Industry addresses public nuisances under Chapter 1.30 (Public Nuisance) of the Municipal Code. However, the City has not adopted long-term noise and vibration criteria for prescribing maximum permissible noise levels. For CEQA analyses and corresponding mitigation recommendations, the City typically defers to the County of Los Angeles's Noise Ordinance.

Noise Standards

The County of Los Angeles regulates noise through the County Code, Title 12, Chapter 12.08, Noise Control. Pursuant to the County Code, the County restricts noise levels generated at a property from exceeding certain noise levels for extended periods of time.

The County applies the Noise Control Ordinance standards summarized in **Table NOI-1** to non-transportation fans, blowers, pumps, turbines, saws, engines, and other similar machinery. These standards do not gauge the compatibility of developments in the noise environment, but they do include restrictions on the amount and duration of noise generated at a property, as measured at the property line of the noise receptor. The County's noise ordinance is designed to protect people from objectionable non-transportation noise sources such as music, construction activity, machinery, pumps, and air conditioners. The noise standards in **Table NOI-1** apply to all property in a designated noise zone unless otherwise indicated.

TABLE NOI-1
LOS ANGELES COUNTY EXTERIOR NOISE STANDARDS FOR NON-TRANSPORTATION SOURCES

Noise Zone	Time Period	Maximum Permissible Noise Level (dBA)[1,2]				
		Standard 1 (L_{50})	Standard 2 (L_{25})	Standard 3 (L_8)	Standard 4 (L_2)	Standard 5 (L_{max})
Noise-Sensitive Area	Anytime	45	50	55	60	65
Residential Properties	10 PM to 7 AM	45	50	55	60	65
	7 AM to 10 PM	50	55	60	65	70
Commercial Properties	10 PM to 7 AM	55	60	65	70	75
	7 AM to 10 PM	60	65	70	75	80
Industrial Properties	Anytime	70	75	80	85	90

Source: Los Angeles County 1978, Section 12.08.390

1. *According to Section 12.08.390, if the ambient noise levels exceed the exterior noise standards above, then the ambient noise level becomes the noise standard. If the source of noise emits a pure tone or impulsive noise, the exterior noise levels limits shall be reduced by 5 decibels.*
2. *If the measurement location is on a boundary property between two different zones, the noise limit shall be the arithmetic mean of the maximum permissible noise level limits of the subject zones; except when an intruding noise source originates on an*

industrial property and is impacting another noise zone, the applicable exterior noise level shall be the daytime exterior noise level for the subject receptor property.

- *Standard No. 1 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour. Standard No. 1 shall be the applicable L_{50} noise level shown above; or, if the ambient L_{50} exceeds the foregoing level, then the ambient L_{50} becomes the exterior noise level for Standard No. 1.*
- *Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour. Standard No. 2 shall be the applicable L_{50} noise level shown above plus 5dB; or, if the ambient L_{25} exceeds the foregoing level, then the ambient L_{25} becomes the exterior noise level for Standard No. 2.*
- *Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour. Standard No. 3 shall be the applicable L_{50} noise level shown above plus 10dB; or, if the ambient L_8 exceeds the foregoing level, then the ambient L_8 becomes exterior noise level for Standard No. 3.*
- *Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour. Standard No. 4 shall be the applicable L_{50} noise level shown above plus 15dB; or, if the ambient L_2 exceeds the foregoing level, then the ambient L_2 becomes the exterior noise level for Standard No. 4.*
- *Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable L50 noise level shown above plus 20dB; or, if the ambient L0 exceeds the foregoing level then the ambient Lmax becomes the exterior noise level for Standard No. 5.*

Construction Noise Standards

County standards prohibit the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between the weekday hours of 7:00 PM and 7:00 AM, or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance. The County also sets maximum noise levels not to exceed the following maximum noise levels from mobile equipment (non-scheduled, intermittent, short-term operations for less than 30 days) as summarized in **Table NOI-2**.

TABLE NOI-2
COUNTY OF LOS ANGELES MOBILE CONSTRUCTION EQUIPMENT NOISE LIMITS

	Single-Family Residential	Multi-Family Residential	Semi-Residential/ Commercial
Daily, except Sundays and legal holidays, 7 AM to 8 PM	75 dBA	80 dBA	85 dBA
Daily, 8 PM to 7 AM, and all day Sunday and legal holidays	60 dBA	64 dBA	70 dBA

Source: Los Angeles County 1978, Section 12.08.440. For nonscheduled, intermittent, short-term operations for less than 30 days.

Maximum noise levels from stationary equipment (repetitively scheduled and relatively long-term operations of 10 days or more) are summarized in **Table NOI-3**.

TABLE NOI-3
COUNTY OF LOS ANGELES STATIONARY CONSTRUCTION EQUIPMENT NOISE LIMITS

	Single-Family Residential	Multi-Family Residential	Semi-Residential/ Commercial
Daily, except Sundays and legal holidays, 7 AM to 8 PM	60 dBA	65 dBA	70 dBA
Daily, 8 PM to 7 AM and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

Source: Los Angeles County 1978, Section 12.08.440. For repetitively scheduled and relatively long term operations of 10 days or more.

a) *Less Than Significant Impact With Mitigation Incorporated.*

Short Term

Temporary increases in ambient noise levels as a result of the project would predominantly be associated with construction activities, which would include demolition, site preparation, grading, construction of buildings, paving, and architectural coating. Such activities would require concrete/industrial saws, excavators, and dozers during demolition; excavators, graders, dozers, scrapers, tractors, and water trucks during grading; cranes, forklifts, generators, tractors, and welders during building construction; pavers, rollers, and paving equipment during paving; and air compressors during architectural coating. During these activities, exterior noise levels could affect sensitive receptors in the vicinity of the construction site. As previously described, the project site is bounded by single-family residential units to the east and west, William Workman High School to the south, and industrial buildings to the north. The nearest existing sensitive receptors to the project site are residences directly adjacent to its eastern boundary (while the William Workman High School is just south of the site, the nearest classrooms are approximately 340 feet distant). However, construction activities would occur throughout the project site and would not be concentrated at the point closest to the sensitive receptors.

High groundborne noise levels and other miscellaneous noise levels can be created by the operation of heavy-duty trucks, backhoes, dozers, excavators, scrapers, and other heavy-duty construction equipment. **Table NOI-4** lists the anticipated noise levels of construction equipment. The average noise levels presented the table are based on the quantity, type, and acoustical use factor for each type of equipment that is anticipated to be used.

TABLE NOI-4
MAXIMUM NOISE LEVELS GENERATED BY CONSTRUCTION EQUIPMENT

Type of Equipment	Acoustical Use Factor[1] (percent)	Maximum Noise (L_{max}) at 50 Feet (dBA)
Blasting	1	94
Crane	16	81
Dozer	40	82
Excavator	40	81
Generator	50	81
Grader	40	85
Other Equipment (greater than 5 horsepower)	50	85
Paver	50	77
Roller	20	80
Tractor	40	84
Truck	40	75
Truck	40	80
Welder	40	73

Source: FHWA 2006

Notes: Acoustical use factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Short-term noise levels related to project construction would temporarily increase noise levels in the project vicinity. Site preparation activities, which include excavation and grading, tend to generate the highest noise levels because earth-moving equipment is the noisiest construction equipment. Earth-moving equipment includes excavating machinery such as backhoes, bulldozers, draglines, front loaders, and earth-moving and compacting equipment, which includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings.

As previously described, existing noise standards prohibit the operation of any tools or equipment used in construction that creates a noise disturbance across a residential or commercial real-property line. In the case of the proposed project's construction, a noise disturbance is identified as 75 dBA generated from mobile construction equipment and 60 dBA generated from stationary construction equipment during the daytime hours of 7:00 AM to 8:00 PM on weekday and Saturdays. During the nighttime hours of 8:00 PM to 7:00 AM on weekdays and during all hours on Sundays and holidays, a noise disturbance is identified as 60 dBA generated from mobile construction equipment and 50 dBA generated from stationary construction equipment. The anticipated short-term construction noise levels generated during demolition, grading, paving, building, and coating activities are shown in **Table NOI-5**.

TABLE NOI-5
CONSTRUCTION AVERAGE (DBA) NOISE LEVELS BY RECEPTOR DISTANCE AND CONSTRUCTION PHASE – UNMITIGATED

Description	Estimated Exterior Construction Noise Level	Daytime Construction Noise Standard	Nighttime Construction Noise Standard
Demolition (mobile equipment)	86.9	75 dBA	60 dBA
Site Preparation (mobile equipment)	87.6	75 dBA	60 dBA
Grading (mobile equipment)	88.8	75 dBA	60 dBA
Building Construction (mobile equipment)	88.3	75 dBA	60 dBA
Building Construction (stationary equipment)	81.3	60 dBA	50 dBA
Paving (mobile equipment)	84.3	75 dBA	60 dBA
Painting (stationary equipment)	73.7	60 dBA	50 dBA

*Source: FHWA 2006 (see **Appendix D**)*

Notes: Construction equipment used during each phase derived from Urban Crossroads 2016a. A typical building can reduce noise levels by 20 dBA with the windows closed (HUD 2009, p. 14).

As shown, noise construction standards would be exceeded during every phase of proposed construction, resulting in the need for mitigation to reduce construction-related noise impacts to a less than significant level. Noise source control is the most effective method of controlling construction noise. Source controls, which limit noise, are the easiest to oversee on a construction project. Mitigation at the source reduces the problem everywhere, not just along one single path or for one receiver. Noise path controls are the second method in controlling noise. Barriers or enclosures can provide a substantial reduction in the nuisance effect in some cases. Path control measures include moving equipment farther away from the receiver; enclosing especially noisy activities or stationary equipment; erecting noise enclosures, barriers, or curtains; and using landscaping as a shield and dissipater.

Noise barriers or enclosures can provide a sound reduction of 20 dBA or greater (FHWA 2011). To be effective, a noise enclosure/barrier must physically fit in the available space, must completely break the line of sight between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. A review of the proposed Site Plan (see **Figure 3**) shows that during construction of the proposed project, a 10-foot-high concrete masonry block wall will be incorporated into the easterly property line between the 10-foot-wide landscape buffer and the adjacent residential use. This wall will continue along the south property line at a height of 6 feet and extend along the entire length of the western property line. The proposed wall will serve to separate the uses, shielding line of sight, noise, and light.

Because City construction-related noise standards would be surpassed, mitigation measures **MM NOI-1** and **MM NOI-2** are required to reduce this impact to a less than significant level. The anticipated short-term construction noise levels generated during demolition, grading, paving, building, and coating activities with the imposition of these mitigation measures are presented in **Table NOI-6**.

TABLE NOI-6
CONSTRUCTION AVERAGE (DBA) NOISE LEVELS BY RECEPTOR DISTANCE AND CONSTRUCTION PHASE – MITIGATED

Description	Estimated Exterior Construction Noise Level	Daytime Construction Noise Standard	Nighttime Construction Noise Standard
Demolition (mobile equipment)	66.9	75 dBA	60 dBA
Site Preparation (mobile equipment)	67.6	75 dBA	60 dBA
Grading (mobile equipment)	68.8	75 dBA	60 dBA
Building Construction (mobile equipment)	68.3	75 dBA	60 dBA
Building Construction (stationary equipment)	58.5	60 dBA	50 dBA
Paving (mobile equipment)	64.3	75 dBA	60 dBA
Painting (stationary equipment)	53.7	60 dBA	50 dBA

*Source: FHWA 2006 (see **Appendix D**)*

Notes: Construction equipment used during each phase derived from Urban Crossroads 2016a.

As shown, mitigation measures **MM NOI-1** and **MM NOI-2** would reduce construction-generated noise to levels below the City noise standards and to a less than significant level.

Long Term

On-Site Operational Noise

On-site noise source impacts include noise generated from on-site mechanical equipment and, for the purposes of this analysis, trucking operations while within the confines of the project property. These sources have the potential to create noise impacts in the adjoining community. The proposed project would result in noise from on-site activities such as heating, ventilation, and air conditioning (HVAC) units and other mechanical equipment, slow-moving trucks, pedestrian activity, and parking activities.

As previously described, Section 12.08.390 of the City Municipal Code states that if the existing ambient noise levels exceed exterior noise standards, then the ambient noise level becomes the noise threshold for a proposed project. According to the City's General Plan Environmental Impact Report (2014b), the project area generally experiences ambient noise levels of approximately 78.5 dBA. The ambient noise level experienced in the project area under existing conditions exceeds exterior noise standards. Therefore, this noise level (78.5 dBA) represents the noise threshold for the proposed project's on-site operational noise generation. For the nighttime (10:00 PM to 7:00 AM) threshold, 5 dB is subtracted from this value (73.5 dBA).

Project Mechanical Equipment

Typically, mechanical equipment noise is 55 dBA at 50 feet from the source. This level of stationary source noise is acceptable per the noise standards influencing the project. Furthermore, project HVAC units would be included on the roof of the structures and would likely be located toward the center of the structures and behind a parapet, resulting in the nearest homes to the HVAC units being greater than 50 feet away. On-site HVAC units and associated equipment attached to project structures would be acoustically engineered with appropriate procurement specifications, sound enclosures, and parapet walls to minimize noise—all in accordance with City of Industry noise requirements—to ensure that such equipment does not exceed allowable noise limits. Thus, through compliance with pertinent local noise regulations, noise levels from project mechanical equipment would be less than significant.

Passing Trucks

Trucks accessing the project site would leave Loukelton Street at a reduced speed and would travel through the center of the project site at a distance of approximately 400 feet away from the closest sensitive receptors (i.e., the residences to the east of the site). Because the speed of these on-site trucks would be reduced (in comparison to their flow rate on Loukelton Street) and the trucks would be traveling at a substantial distance from the receptors, on-site truck pass-by noise would be well below the levels these residents currently experience from traffic flows on Loukelton Street. Additionally, as previously described, the project is proposing a 10-foot-high concrete masonry block wall to be incorporated into the easterly property line between the 10-foot-wide landscape buffer and the adjacent residential use. This wall is proposed to continue along the south property line at a height of 6 feet and extend along the entire length of the western property line. The proposed wall will serve to separate the uses, shielding line of sight, noise, and light. Noise barriers, such as these proposed walls, can provide a sound reduction 20 dBA or greater (FHWA 2011). Thus, noise levels from project-generated passing trucks would be less than significant.

Loading Bay Operations

On-site truck operations would be considered a stationary noise source subject to the County's noise regulation limitations. The end-users of the proposed project are currently unknown. Operations could potentially be conducted 24 hours a day or solely during daytime business hours (here assumed to be 7:00 AM to 6:00 PM). Both scenarios will be evaluated in this analysis.

Noise measurements at a variety of similar projects (e.g., Home Depot loading bays, Consolidated Volume Transport truck scales, Macy's truck transfer yard) have demonstrated that the noise produced by idling/maneuvering semi-trucks is typically as shown in **Table NOI-7**.

TABLE NOI-7
SOURCE NOISE LEVELS FOR COMPLETE TRUCKING OPERATIONS AT REFERENCE DISTANCE OF 50 FEET

L_{eq}[1]	L_{50}	L_{25}	$L_{8.3}$	$L_{1.6}$	$L_0 = L_{max}$
73 dBA	70 dBA	73 dBA	76 dBA	80 dBA	83 dBA

Source: Caltrans 2013; Urban Crossroads 2016d

Notes: Source noise levels for trucking operations include truck approach, maneuvering, backing, warning beeps, trailer coupling/de-coupling, idling, air brake discharge, and pull-away.

[1] Entry not applicable for the proposed project operations (see text). This information is shown for completeness only.

For purposes of this impact assessment, the proposed project's seven warehouse buildings are assumed to accept up to 235 trucks per day combined (Urban Crossroads 2016d). The project would experience a peak of 24 truck trips during the peak hour of traffic (Urban Crossroads 2016d). By state law, diesel trucks are prohibited from idling for more than 5 minutes at any one location. Additionally, it is assumed that the maneuvering operation for any given truck would take no more than 3 to 5 minutes. Thus, the combination of maneuvering and parking and idling near or in the project's loading bays would take a maximum of 10 minutes per truck trip.

For the purposes of this analysis, distances to receptors were measured from the center of the project site in order to represent the average of the distances to all the buildings (see **Figure 3**). Furthermore, the project applicant has proposed to position all dock loading areas toward the center of the project site and away from the residential neighborhoods bounding the site in order to minimize potential truck and loading related noise impacts. The nearest noise-sensitive receptors (single-family residences) are approximately 400 feet from the center of the project site. These residences would experience 9 dB of sound reduction due to distance attenuation (considering an attenuation rate of 3 dB per doubling distance as described above) and approximately 8 dB of attenuation due to intervening buildings (FHWA 2006). Additionally, as previously described the project is proposing a 10-foot-high concrete masonry block wall to be incorporated into the easterly property line between the 10-foot-wide landscape buffer and the adjacent residential use. Noise barriers, such as this proposed wall, can provide a sound reduction 20 dB or greater (FHWA 2011).

As stated, the project would experience a peak of 24 truck trips during the peak hour of traffic (Urban Crossroads 2016d). These 24 trucks, with a maximum loading duration of 10 minutes each, would have an effective, averaged period of 240 minutes (24 trucks per hour multiplied by a 10-minute per-truck operations period) or 4 simultaneous truck operations. That is, there would be an average of about 4 trucks idling or maneuvering around the loading docks during any given point within the peak traffic hour. According to the Caltrans (2013) Technical Noise Supplement to the Traffic Noise Analysis Protocol, when four combining noise levels are the same noise level, the total combined contribution is 6 dB higher than the single noise level. Thus, the highest noise levels generated by on-site loading bay operations would be 76 dBA L_{50} at the source. Accounting for the sound reductions described above (distance to sensitive receptors, intervening buildings, and the proposed wall surrounding the site) results in a noise attenuation ranging from 11 to 31 dBA. Therefore, the noise levels experienced at the nearest sensitive receptors from on-site loading bay activities would be 45 to 66 dBA.

As previously described, Section 12.08.390 of the City Municipal Code states that if the existing ambient noise levels exceed exterior noise standards, then the ambient noise level becomes the noise threshold for a proposed project. According to the City General Plan Environmental Impact Report (2014b), the project area generally experiences ambient noise levels of approximately 78.5 dBA. For the nighttime (10:00 PM to 7:00 AM) threshold, 5 dB is subtracted

from this value (73.5 dBA). Therefore, noise generated by loading bay activities would be less than significant.

In order to ensure that the proposed design features limiting noise levels associated with on-site project operations are implemented, mitigation measure **MM NOI-3** is required.

Off-Site Operational Noise (Traffic)

Development of the proposed project would cause increases in traffic along local roadways. The project site is bounded by single-family residential units, a school, and industrial buildings. As identified in the City Safety Element, the normally acceptable ambient noise environment for single-family residential ranges from 50 to 60 dBA CNEL. The normally acceptable ambient noise environment ranges from 50 to 70 dBA CNEL for schools and from 50 to 75 dBA CNEL for industrial land uses. For purposes of this analysis, a substantial increase in noise levels is defined as an increase of 5.0 dB, or greater, where the noise levels, without project implementation, are within the General Plan's "normally acceptable" noise standard. Where the noise level, without project implementation, exceeds applicable noise standards, an increase of 3.0 dB, or greater, would be considered a substantial increase. Future traffic noise levels throughout the area surrounding the project site were modeled based on the traffic volumes identified by Urban Crossroads (2016d) to determine the noise level contours along project area roadways (see **Appendix E**). **Table NOI-8** compares the calculated roadway noise levels under existing traffic levels and under the development potential with the proposed project.

TABLE NOI-8
SUMMARY OF MODELED TRAFFIC NOISE LEVEL CHANGES IN THE PROJECT VICINITY

Roadway Segment	CNEL at 75 Feet from Near-Travel-Lane Centerline[1]		Increase	Threshold	Impact	Affected Land Use
	Without Project	With Project				
Loukelton Street						
East of Echelon Avenue	52.9	52.9	**0.0**	5.0	**No**	Residential
West of Echelon Avenue (Project Site Front)	49.4	51.6	**2.2**	5.0	**No**	Industrial
Echelon Avenue						
Between E. Amar Road and Loukelton Street	54.6	55.4	**0.8**	5.0	**No**	Residential

*Source: FHWA 2006; see **Appendix D***

Notes: CNEL = Community Noise Equivalent Level; dB = A-weighted decibels

As shown in **Table NOI-8**, predicted increases in traffic noise levels associated with the project would be less than significant.

As demonstrated, short-term construction-generated noise would be reduced to levels under significance standards with the implementation of mitigation measures **MM NOI-1** and **MM NOI-2.** Similarly, long-term, operational noise would be within the applicable noise standards with the imposition of mitigation measure **MM NOI-3**. For these reasons, impacts would be less than significant.

b) *Less Than Significant Impact*. Project construction would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. This impact discussion uses Caltrans's (2002) recommended standard of 0.2 inches per second (in/sec) peak particle velocity (PPV) with respect to the prevention of structural damage for normal buildings. **Table NOI-9** lists vibration levels for typical construction equipment.

TABLE NOI-9
TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Equipment	Peak Particle Velocity at 25 Feet (inches/second)
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Rock Breaker	0.059
Jackhammer	0.035
Small Bulldozer/Tractors	0.003

Source: FTA 2006; Caltrans 2004

The nearest structure to the project site is adjacent to the construction site boundary. However, it is acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to the nearest structure. Based on the vibration levels shown in **Table NOI-9**, ground vibration generated by heavy-duty equipment would not be anticipated to exceed approximately 0.08 in/sec PPV at 25 feet. Therefore, the use of virtually any type of construction equipment would most likely not result in a groundborne vibration velocity level above 0.2 in/sec and predicted vibration levels at the nearest off-site structures would not exceed recommended criteria. Additionally, impacts would be temporary and would cease completely when construction ends. Once operational, the project would not be a source of groundborne vibration. Impacts would be less than significant.

c) *Less Than Significant Impact With Mitigation Incorporated*. See Issue a).

d) *Less Than Significant Impact With Mitigation Incorporated*. See Issue a).

e) *No Impact*. The project site is not in an area covered by an airport land use plan or within 2 miles of a public airport or public-use airport. The project is well beyond any airport's 60 dBA CNEL zone. Therefore, the proposed project would not expose people to excessive aircraft noise levels, and no impacts are anticipated.

f) *No Impact*. The project site is beyond any 60 dBA CNEL noise contour. Further, helicopter take-offs and landings are infrequent and at sufficient distances from the project site that they would not expose workers employed in the buildings to excessive noise levels. No impacts are anticipated.

Mitigation Measures

MM NOI-1 In order to reduce construction noise, the proposed concrete masonry block wall along the eastern, southern, and western boundaries of the project site shall be constructed before any other proposed construction activities commence. Or, if it is the case that this sequence of construction is impractical, a temporary noise barrier or enclosure shall be used along the eastern, southern, and western property lines to break the line of sight between the construction equipment and the adjacent residences. The temporary noise barrier shall have a sound transmission class (STC) of 35 or greater in accordance with American Society for Testing and Materials Test Method E90, or at least 2 pounds per square foot, to ensure adequate transmission loss characteristics. In order to achieve this, the barrier may consist of steel tubular framing, welded joints, a layer of 18-ounce tarp, a 2-inch-thick fiberglass blanket, half-inch-thick weatherwood asphalt sheathing, and 7/16-inch sturdy board siding. In addition, to avoid objectionable noise reflections, the source side of the noise barrier shall be lined with an acoustic absorption material meeting a noise reduction coefficient rating of 0.70 or greater in accordance with American Society for Testing and Materials Test Method C423.

Timing/Implementation: *Prior to ground-disturbing construction activities*

Enforcement/Monitoring: *City of Industry Planning Department*

MM NOI-2 The project improvement and building plans shall include the following requirements for construction activities:

1. Construction shall be restricted to the hours of 7:00 AM to 7:00 PM Monday through Saturday and shall be prohibited at any time on Sunday or a federal holiday.

2. To ensure that other noise level standards for longer-duration activities (i.e., the L25 and L50 limits for activities occurring for 15 and 30 minutes per hour, respectively) are not breached by project trucking operations, nonessential on-site truck maneuvering will be restricted to a duration of no more than 10 minutes and on-site truck idling will be restricted to a duration of no more than 5 minutes, for a total duration of not more than 15 minutes for each truck trip.

3. All maneuvering, including backing, will be conducted as far away from the eastern property line as practical.

4. All internal combustion engine–driven equipment shall be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment.

5. Stationary, noise-generating equipment (e.g., generators and compressors) shall be located as far as possible from adjacent residential properties.

6. If stationary, noise-generating equipment must be located near existing residential properties for extended periods of time, such equipment shall have temporary acoustical enclosures, blanketing, or barriers to reduce the noise emissions.

7. The contractor shall use "quiet" air compressors and other stationary noise sources where such technology exists.

8. The contractor shall reduce nonessential idling of construction equipment to no more than 5 minutes.

9. Signs with the operations procedures shall be used to enforce this restriction.

Timing/Implementation: *During all ground-disturbing construction activities*

Enforcement/Monitoring: *City of Industry Planning Department*

MM NOI-3 The project improvement and building plans will include the following requirements for construction activities:

1. A minimum of a 10-foot-wide landscape buffer shall be included in the project design along the entire east property line in order to buffer the adjacent residential use from the project site.

2. A 10-foot-high concrete masonry block wall shall be incorporated into the site plan along the easterly property line between the 10-foot-wide landscape buffer and the adjacent residential neighborhood. The wall shall continue along the entire length of the southern and western property lines at a height of 6 feet minimum.

3. All truck dock loading areas shall be designed to be positioned in such a way to be visually blocked from any residential use.

4. All dock loading areas shall be positioned toward the center of the project site and away from the residential neighborhoods to the east and west in order to minimize truck and loading-related noise.

5. All noise-making stationary, mechanical equipment shall be located toward the center of the project site. The three buildings nearest to the eastern boundary of the site shall be limited to placement of said noise-making stationary, mechanical equipment toward the west half of the building roof.

Timing/Implementation: *Ongoing*

Enforcement/Monitoring: *City of Industry Planning Department*

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) *Less Than Significant Impact*. The proposed project involves the development of new industrial/warehouse buildings and does not include the construction of new homes. It does, however, involve the extension of one road, named New Echelon Street, that will be used as an entrance into the proposed commerce park and allow access to parking lots. The use of this new road would not induce population growth; therefore, the proposed project would not directly or indirectly induce population growth in the area. The project would generate temporary construction and operational employment. Projected employment densities for various land uses vary widely, depending on the location and actual business activities. For Los Angeles County, estimates developed by the Southern California Association of Governments are approximately one employee for 1,500 square feet of warehouse space and one employee for 400 square feet of low-rise office space (Natelson Company 2001). Using these values, warehouse space of 246,373 square feet would yield an estimated 165 jobs for the developed project.

The Southern California Association of Governments estimates that employment in the City of Industry will increase from 84,070 in 2008 to 88,404 in 2035, or 4,334 additional jobs (SCAG 2012). The unemployment rate in Los Angeles County in December 2013 was estimated at 9.2 percent (EDD 2016). Thus, it is expected that the project would absorb workers from the regional labor force and would not attract new workers into the region. The project would not result in substantial population growth, and this impact would be less than significant

b) *No Impact*. The project consist predominantly of an undeveloped lot. There is one existing vacant residential unit located on the northeast with no significant or meaningful purpose. Therefore, existing housing would not be involved, and replacement housing would not be needed. No impact would occur.

c) *No Impact*. Implementation of the proposed project would not displace people, nor would it require the construction of replacement housing. No impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

a) *Less Than Significant Impact*. The City of Industry contracts with the Los Angeles County Fire Department (LACFD) for fire protection services. The City is served by Division 8, Battalion 12 of the LACFD, which operates six fire stations (Fire Stations 26, 43, 87, 91, 118, and 145). Battalion 12 also provides fire protection services to Rowland Heights, La Puente, La Mirada, and Hacienda Heights. The nearest fire station to the project site is Fie Station 26 at 15336 Elliott Avenue in La Puente, about 0.9 mile west of the site.

The proposed project does not include housing, and the new infrastructure would not substantially increase the area population or service area boundaries. Development of the project could result in a slight increase in calls for fire protection and emergency medical service. However, considering the existing firefighting resources available in and near the City of Industry, project impacts on fire protection are not expected to occur, and the LACFD would continue to provide adequate service to the project area. Such small increases in demand would also not require the LACFD to build new or expanded stations or to obtain additional staff or equipment.

The City involves the LACFD in the Development Plan review process in order to ensure that the necessary fire prevention and emergency response features are incorporated into development projects. Therefore, all site and building improvements proposed under the project would be subject to review and approval by the LACFD prior to the issuance of building permits and certificates of occupancy. Furthermore, the City of Industry imposes standard conditions of approval during the Development Plan review process that require City Council review and approval. As a standard condition of approval, the following standard condition would be imposed on the project: "The applicant shall construct adequate fire protection facilities to the satisfaction of the LACFD." Therefore, impacts on fire protection services would be less than significant.

b) *Less Than Significant Impact*. The City of Industry contracts with the Los Angeles County Sheriff's Department (LASD) for law enforcement and crime prevention services. The LASD has a patrol station in the City of Industry at 150 Hudson Avenue, approximately 1.4 miles southwest of the project site. This station is responsible for providing police services in Industry, La Puente, and La Habra Heights and the unincorporated Los Angeles County communities of East and West Valinda, Bassett/North Whittier, and Hacienda Heights.

Development of the project is not expected to cause a need for new or expanded police facilities or additional officers. The LASD would continue to provide adequate service to the project area. Therefore, no significant increases in police protection services would occur.

c) *No Impact*. The project site is located in the Hacienda La Puente Unified School District. Demand for public services such as school is generally based on population. The proposed industrial/warehouse project does not involve residential development and would not induce population growth. Therefore, the project would not increase the demand on local schools and no impact would occur.

d) *No Impact*. The proposed project does not involve park development or displacement. Demand for parks is determined by the population of the parks' service areas. The project would not add residences or cause an increase in the population of the surrounding community. Therefore, the project would not increase the demand for parks and no impact would occur.

e) *No Impact*. The proposed project would not directly or indirectly lead to an increase in population in the project area. Additionally, the proposed project would not require the use or maintenance of other public facilities, such as libraries. Therefore, no impact to other public facilities would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a) *No Impact*. The demand for parks is determined by changes in housing and population. The proposed project would not involve the development of any housing and would not directly or indirectly induce population or increase demand on parks and recreational resources. Therefore, no impact would occur.

b) *No Impact*. The proposed project would not develop recreational facilities and would not require the development of such facilities. No impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

a) *Less Than Significant Impact.* Urban Crossroads (2016d) conducted a traffic impact analysis (TIA) to evaluate the impacts of the proposed project on the study area circulation system. The TIA is included as **Appendix E** of this Initial Study. The results of the analysis are summarized below. The TIA study area was defined in coordination with City of Industry staff and in conformance with the requirements of the Congestion Management Program (CMP) guidelines. Based on these guidelines, the minimum area to be studied includes any intersections at which the proposed project will add 50 or more peak-hour trips.

Nine study area intersection locations, shown on Exhibit 1-2 of **Appendix E** and listed below in **Table TR-1**, were selected for the TIA based on the City's traffic study requirements that require analysis of intersection locations in which a proposed project is anticipated to contribute 50 or more peak-hour trips in addition to additional locations added at the request of City staff. Intersections where the project is anticipated to contribute 50 or more peak-hour trips are denoted with an asterisk (*) in **Table TR-1**.

TABLE TR-1
INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction	CMP?
1	Hacienda Blvd./Amar Rd.	La Puente	No
2	Hacienda Blvd./Nelson Ave.	Industry, La Puente	No
3	Hacienda Blvd./Valley Blvd.	Industry	No
4	New Echelon St./Loukelton St. – Future Intersection (*)	Industry	No
5	Echelon Ave./Amar Rd. (*)	Industry, LA County	No
6	Echelon Ave./Loukelton St. (*)	Industry, LA County	No
7	Valinda Ave./Amar Rd.	Covina, LA County	No
8	Azusa Ave./Amar Rd.	Covina, LA County	Yes
9	Azusa Ave./Hurley St.	Industry	No

Source: Urban Crossroads 2016d, Table 1-1
Note: CMP = Congestion Management Program

Existing Traffic – Intersection Operations

Existing peak-hour traffic operations were evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2, Intersection Capacity Analysis, of the TIA (see **Appendix E**). The intersection operations analysis results are summarized in **Table TR-2,** which indicates that all of the existing study area intersections are currently operating at acceptable level of service (LOS) during the peak hours, based on each applicable jurisdiction's level of service criteria, with the exception of the following intersections:

- Hacienda Blvd./Amar Rd. (#1) – LOS E in PM peak hour only
- Hacienda Blvd./Valley Blvd. (#3) – LOS E in AM peak hour; LOS F in PM peak hour

TABLE TR-2
INTERSECTION ANALYSIS FOR EXISTING (2016) CONDITIONS

ID	Intersection		Traffic Control[1]	ICU (v/c) or Delay (sec.)[2]		Level of Service	
				AM	PM	AM	PM
1	Hacienda Blvd./Amar Rd.	ICU:	TS	0.826	**0.937**	D	**E**
		HCM:	TS	33.5	43.9	C	D
2	Hacienda Blvd./Nelson Ave.	ICU:	TS	0.789	0.647	C	B
		HCM:	TS	26.5	19.8	C	B
3	Hacienda Blvd./Valley Blvd.	ICU:	TS	**0.971**	**1.030**	**E**	**F**
		HCM:	TS	47.3	**77.9**	D	**E**
4	New Echelon St./Loukelton St.	HCM:	Future Intersection				

ID	Intersection		Traffic Control[1]	ICU (v/c) or Delay (sec.)[2]		Level of Service	
				AM	PM	AM	PM
5	Echelon Ave./Amar Rd. (*)	ICU:	TS	0.803	0.659	D	B
		HCM:	TS	17.2	18.2	B	B
6	Echelon Ave./Loukelton St.						
		HCM:	AWS	14.1	8.0	B	A
7	Valinda Ave./Amar Rd.	ICU:	TS	0.738	0.783	C	C
		HCM:	TS	25.1	37.2	C	D
8	Azusa Ave./Amar Rd.	ICU:	TS	0.697	0.801	B	D
		HCM:	TS	32.4	34.0	C	C
9	Azusa Ave./Hurley St.	ICU:	TS	0.894	**0.910**	D	**E**
		HCM:	TS	30.2	39.8	C	D

Source: Urban Crossroads 2016d, Table 3-1
*Notes: * **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).*
1. *When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes.*
2. *ICU reported as a volume-to-capacity ratio and HCM delay reported in seconds. ICU reported from Traffix (Version 8.0) and HCM from Synchro (Version 9.1). Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. ICU and HCM report for all signalized intersections; however, ICU utilized for purposes of determining significant impacts.*
3. *TS = traffic signal; AWS = all-way stop*

Project Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development and is based on the specific land uses planned for a given project. Trip generation rates and a summary for the project are shown in **Table TR-3** based on passenger car equivalents (PCE) and in **Table TR-4** based on actual vehicles. Trip generation for trucks was further broken down by truck type (or axle type). The total truck percentage comprises three different truck types: 2-axle, 3-axle, and 4-axle+ trucks. For a full discussion of this process, refer to **Appendix E**.

TABLE TR-3
PROJECT TRIP GENERATION SUMMARY (IN PCE)

Land Use	Units[2]	ITE Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Rates (PCE)[1]									
Business Park	TSF	—[3]	0.187	0.045	0.232	0.045	0.165	0.210	2.336
		Passenger Cars	0.151	0.036	0.188	0.036	0.134	0.170	1.892
		2-Axle Trucks	0.028	0.007	0.035	0.007	0.025	0.032	0.354
		3-Axle Trucks	0.003	0.001	0.004	0.001	0.003	0.004	0.042
		4-Axle+ Trucks	0.045	0.011	0.053	0.011	0.040	0.050	0.561

Land Use	Quantity	Units[2]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Rates (PCE) Trip Generation Summary									
Buildings A–G	246.373	TSF							
Passenger Cars			37	9	46	9	33	42	466
2-Axle Trucks			7	2	9	2	6	8	87
3-Axle Trucks			1	0	1	0	1	1	10
4-Axle+ Trucks			11	3	14	3	10	13	138
- Net Truck Trips (PCE)[4]			19	5	24	5	17	22	235
Total Net Trips (PCE)[5]			56	14	70	14	50	64	701

Source: Urban Crossroads 2016, Table 4-1
Notes:
1. *Trip Generation Source: Empirical data collected in July 2013, based on an average of data collected at four sample sites.*
2. *TSF = thousand square feet*
3. *Vehicle Mix Source: Empirical data collected in July 2013, based on an average of data collected at four sample sites: 81.0% passenger cars, 10.1% 2-axle trucks, 0.9% 3-axle trucks, 8.0% 4-axle trucks.*
4. *PCE rates are per SANBAG as PCE factors are not readily available in the LA County CMP (1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks).*
5. *Total Net Trips (PCE) = Passenger Cars + Net Truck Trips (PCE).*

TABLE TR-4
PROJECT TRIP GENERATION SUMMARY (IN ACTUAL VEHICLES)

Land Use	Units[2]	ITE Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Rates (Actual Vehicles)[1]									
Business Park	TSF	--[3]	0.187	0.045	0.232	0.045	0.165	0.210	2.336
Passenger Cars			0.151	0.036	0.188	0.036	0.134	0.170	1.892
2-Axle Trucks			0.019	0.005	0.023	0.005	0.017	0.021	0.236
3-Axle Trucks			0.002	0.000	0.002	0.000	0.001	0.002	0.021
4-Axle+ Trucks			0.015	0.004	0.019	0.004	0.013	0.017	0.187
Actual Vehicles Trip Generation Summary									
Buildings A–G	246.373	TSF							
Passenger Cars			37	9	46	9	33	42	466
2-Axle Trucks			5	1	6	1	4	5	58
3-Axle Trucks			0	0	1	0	0	0	5
4-Axle+ Trucks			4	1	5	1	3	4	46
- Net Truck Trips (Actual Vehicles)			9	2	11	2	8	10	109
Total Net Trips (Actual Vehicles)[4]			46	11	57	11	41	52	576

Source: Urban Crossroads 2016, Table 4-2
Notes:
1 *Trip Generation Source: Empirical data collected in July 2013, based on an average of data collected at four sample sites.*
2 *TSF = thousand square feet*

3. Vehicle Mix Source: Empirical data collected in July 2013, based on an average of data collected at four sample sites: 81.0% passenger cars, 10.1% 2-axle trucks, 0.9% 3-axle trucks, 8.0% 4-axle trucks.
4. Total Net Trips (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks.)

Existing Plus Project Conditions

Existing plus project (E+P) peak-hour traffic operations were evaluated for the study area intersections based on the analysis methodologies presented in the TIA. The intersection analysis results are summarized in **Table TR-5**. There are no additional intersections anticipated to operate at an unacceptable level of service, in addition to those currently operating at a deficient level of service under Existing (2016) traffic conditions. In addition, the addition of project traffic is anticipated to change the volume-to-capacity (v/c) by less than 2 percent (0.02) at each of the existing deficient study area intersections.

Based on the applicable jurisdiction's significance criteria, no study area intersections were found to be significantly impacted by the project for E+P traffic conditions.

- *Hacienda Blvd./Amar Rd. (#1)* – LOS E in PM peak hour only for both Existing (2016) and E+P traffic conditions. The addition of project traffic would increase the v/c by less than 0.02 percent. As such, the impact is less than significant.

- *Hacienda Blvd./Valley Blvd. (#3)* – LOS E in AM peak hour and LOS F in PM peak hour for both Existing (2016) and E+P traffic conditions. The addition of project traffic would increase the v/c by less than 0.02 percent. As such, the impact is less than significant.

- *Azusa Ave./Hurley St. (#9)* – LOS E in PM peak hour only for both Existing (2016) and E+P traffic conditions. The addition of project traffic would increase the v/c by less than 0.02 percent. As such, the impact is less than significant.

According to the TIA, there are no study area intersections anticipated to meet either the peak-hour or average daily traffic (ADT) volume-based traffic signal warrants for E+P traffic conditions.

TABLE TR-5
INTERSECTION ANALYSIS FOR EXISTING PLUS PROJECT CONDITIONS

#	Intersection		Traffic Control	Existing (2016)				E+P				Change in v/c		Significant Impact?
				ICU (v/c) or Delay (secs.)		Level of Service		ICU (v/c) or Delay (secs.)		Level of Service				
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	Hacienda Blvd./Amar Rd.	ICU:	TS	0.826	**0.937**	D	**E**	0.839	**0.951**	D	**E**	0.013	0.014	No
		HCM:	TS	33.5	43.9	C	D	33.7	45.1	C	**D**			
2	Hacienda Blvd./Nelson Ave.	ICU:	TS	0.789	0.647	C	B	0.793	0.648	C	B	0.004	0.001	N/A
		HCM:	TS	26.5	19.8	C	B	26.6	19.8	C	B			
3	Hacienda Blvd./Valley Blvd.	ICU:	TS	**0.971**	**1.030**	**E**	**F**	**0.975**	**1.032**	**E**	**F**	0.004	0.002	No
		HCM:	TS	47.3	**77.9**	D	**E**	48.0	**78.1**	D	**E**			
4	New Echelon St./Loukelton St.	HCM:	CSS	Future Intersection				9.4	8.8	A	A			N/A
5	Echelon Ave./Amar Rd.	ICU:	TS	0.803	0.659	D	B	0.809	0.682	D	B	0.006	0.023	N/A
		HCM:	TS	17.2	18.2	B	B	17.4	18.3	B	B			
6	Echelon Ave./Loukelton St.	HCM:	AWS	14.1	8.0	B	A	18.3	8.3	C	A			N/A
7	Valinda Ave./Amar Rd.	ICU:	TS	0.738	0.783	C	C	0.744	0.788	C	C	0.006	0.005	N/A
		HCM:	TS	25.1	37.2	C	D	25.1	37.6	C	D			
8	Azusa Ave./Amar Rd.	ICU:	TS	0.697	0.801	B	D	0.702	0.802	C	D	0.005	0.001	N/A
		HCM:	TS	32.4	34.0	C	C	33.3	34.7	C	C			
9	Azusa Ave./Hurley St.	ICU:	TS	0.894	**0.910**	D	**E**	0.896	**0.913**	D	**E**	0.002	0.003	No
		HCM:	TS	30.2	39.8	C	D	30.4	40.0	C	D			

Source: Urban Crossroads 2016d, Table 5-1
*Notes: * **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).*
1. ICU reported as a volume-to-capacity ratio and HCM delay reported in seconds. ICU reported from Traffix (Version 8.0) and HCM from Synchro (Version 9.1). Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. ICU and HCM report for all signalized intersections; however, ICU utilized for purposes of determining significant impacts.
*2. TS = traffic signal; AWS = all-way stop; CSS = cross-street stop; **CSS** = improvement*
3. To determine whether the addition of project traffic at a study intersection results in a significant impact, the following thresholds of significance consistent with the Los Angeles County CMP were utilized:
- A significant impact occurs at a signalized intersection if the addition of project trips causes the peak-hour LOS to fall from an acceptable LOS to an unacceptable LOS and the proposed project increases the demand (v/c) by 0.02 or more.
- A significant impact occurs at a signalized intersection if the addition of project trips to an intersection that is currently operating at an acceptable LOS (i.e., LOS E or F) causes the v/c to increase by 0.02 or more.
- A significant impact occur at an unsignalized intersection if the addition of project trips causes the peak-hour LOS to fall from an acceptable LOS to an unacceptable LOS.
- N/A = not applicable

Opening Year Cumulative (2018) Traffic Conditions

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative conditions are consistent with those shown on Exhibit 3-1 of **Appendix E**, with the exception of project driveways and those facilities assumed to be constructed by the project to provide site access, which are anticipated to be in place for Opening Year Cumulative (2018) traffic conditions.

Opening Year Cumulative without Project Traffic Volume Forecasts: This scenario includes Existing traffic volumes, an ambient growth factor of 1.0 percent, and traffic from pending and approved but not yet constructed known development projects in the area. The weekday ADT and AM and PM peak-hour volumes that can be expected for Opening Year Cumulative without Project traffic conditions are shown on Exhibit 6-1 of **Appendix E**.

Level of service calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative without Project conditions. As shown in **Table TR-6**, the following additional study area intersection is anticipated to operate at an unacceptable level of service, in addition to those previously identified under Existing (2016) traffic conditions under Opening Year Cumulative (2018) without Project traffic conditions:

- Azusa Ave./Hurley St. (#9) – LOS E in AM and PM peak hours

Opening Year Cumulative with Project Traffic Volume Forecasts: This scenario includes Existing traffic volumes, an ambient growth factor of 1.0 percent, traffic from pending and approved but not yet constructed known development projects in the area, and the addition of proposed project traffic. The weekday ADT and AM and PM peak-hour volumes that can be expected for Opening Year Cumulative with Project traffic conditions are shown on Exhibit 6-2 of **Appendix E**.

The addition of project traffic is anticipated to change the v/c by less than 2 percent (0.02) at each of the three deficient study area intersections. As such, the addition of project traffic, as shown in **Table TR-6**, does not result in a significant cumulative impact at the study area intersections based on the City of Industry's threshold of significance.

For Opening Year Cumulative (2018) without and with Project conditions, no intersections are anticipated to meet either the peak-hour or ADT volume-based traffic signal warrants.

TABLE TR-6
INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2018) CONDITIONS

#	Intersection		Traffic Control	2018 without Project				2018 with Project				Change in v/c		Significant Impact?
				ICU (v/c) or Delay (secs.)		Level of Service		ICU (v/c) or Delay (secs.)		Level of Service				
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	Hacienda Blvd./Amar Rd.	ICU:	TS	0.896	**1.004**	D	**F**	0.868	**1.018**	D	**F**	0.005	0.014	No
		HCM:	TS	37.0	48.1	D	D	40.2	50.1	D	D			
2	Hacienda Blvd./Nelson Ave.	ICU:	TS	0.876	0.759	D	C	0.877	0.760	D	C	0.001	0.001	N/A
		HCM:	TS	35.7	26.1	D	C	35.7	26.1	D	C			
3	Hacienda Blvd./Valley Blvd.	ICU:	TS	**1.016**	**1.095**	**F**	**F**	**1.019**	**1.096**	**F**	**F**	0.003	0.001	No
		HCM:	TS	51.9	**80.9**	D	**F**	52.9	**81.1**	D	**F**			
4	New Echelon St./Loukelton St.	HCM:	CSS	Future Intersection				9.4	8.8	A	A			N/A
5	Echelon Ave./Amar Rd.	ICU:	TS	0.811	0.667	D	B	0.817	0.690	D	B	0.006	0.023	N/A
		HCM:	TS	17.3	19.2	B	B	18.5	19.9	B	B			
6	Echelon Ave./Loukelton St.	HCM:	AWS	14.2	8.0	B	A	18.6	8.3	C	A			N/A
7	Valinda Ave./Amar Rd.	ICU:	TS	0.745	0.792	C	C	0.752	0.797	C	C	0.007	0.005	N/A
		HCM:	TS	27.8	38.6	C	D	28.0	38.8	C	D			
8	Azusa Ave./Amar Rd.	ICU:	TS	0.774	0.881	C	D	0.779	0.881	C	D	0.005	0.000	N/A
		HCM:	TS	34.9	35.3	C	D	35.1	36.0	D	D			
9	Azusa Ave./Hurley St.	ICU:	TS	**0.974**	**0.993**	**E**	**E**	**0.976**	**0.996**	**E**	**E**	0.002	0.003	No
		HCM:	TS	35.3	46.2	D	D	35.3	46.6	D	D			

Source: Urban Crossroads 2016d, Table 6-1

*Notes: * **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).*

1. *ICU reported as a volume-to-capacity ratio and HCM delay reported in seconds. ICU reported from Traffix (Version 8.0) and HCM from Synchro (Version 9.1). Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. ICU and HCM report for all signalized intersections; however, ICU utilized for purposes of determining significant impacts.*
2. *TS = traffic signal; AWS = all-way stop; CSS = cross-street stop; **CSS** = improvement*
3. *To determine whether the addition of project traffic at a study intersection results in a significant impact, the following thresholds of significance consistent with the Los Angeles County CMP were used:*
   - A significant impact occurs at a signalized intersection if the addition of project trips causes the peak-hour LOS to fall from an acceptable LOS to an unacceptable LOS and the proposed project increases the demand (v/c) by 0.02 or more.
   - A significant impact occurs at a signalized intersection if the addition of project trips to an intersection that is currently operating at an acceptable LOS (i.e., LOS E or F) causes the v/c to increase by 0.02 or more.
   - A significant impact occur at an unsignalized intersection if the addition of project trips causes the peak-hour LOS to fall from an acceptable LOS to an unacceptable LOS.
   - N/A = not applicable

Horizon Year (2040) Traffic Conditions

The lane configurations and traffic controls assumed to be in place for Horizon Year conditions are consistent with those shown on Exhibit 3-1 of **Appendix E**, with the exception of project driveways and those facilities assumed to be constructed by the project to provide site access, which are anticipated to be in place for Horizon Year (2040) traffic conditions.

Horizon Year without Project Traffic Volume Forecasts: This scenario includes Existing traffic volumes, an ambient growth factor of 12.72 percent (0.5 percent compounded annually over 24 years), and traffic from pending and approved but not yet constructed known development projects in the area. The weekday ADT and AM and PM peak-hour volumes that can be expected for Horizon Year without Project traffic conditions are shown on Exhibit 7-1 of **Appendix E**.

Level of service calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative without Project conditions, with roadway and intersection geometrics. As shown in **Table TR-7**, the following additional study area intersections are anticipated to operate at an unacceptable level of service, in addition to those previously identified under Existing (2016) and Opening Year Cumulative (2018) traffic conditions under Horizon Year (2040) without Project traffic conditions:

- Hacienda Blvd./Nelson Ave. (#2) – LOS E AM in peak hour only
- Azusa Ave./Amar Rd. (#8) – LOS E in PM peak hour only

Horizon Year with Project Traffic Volume Forecasts: This scenario includes Existing traffic volumes, an ambient growth factor of 12.72 percent, traffic from pending and approved but not yet constructed known development projects in the area, and the addition of project traffic. The weekday ADT and AM and PM peak-hour volumes that can be expected for Horizon Year with Project traffic conditions are shown on Exhibit 7-2 of **Appendix E**.

The addition of project traffic is anticipated to change the v/c by less than 2 percent (0.02) at each of the five deficient study area intersections. As such, the addition of project traffic does not result in a significant cumulative impact at the study area intersections based on the City of Industry's threshold of significance.

For Horizon Year (2040) without and with Project conditions, no intersections are anticipated to meet either the peak-hour or ADT volume-based traffic signal warrants.

TABLE TR-7
INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS

#	Intersection		Traffic Control	2018 without Project				2018 with Project				Change in v/c		Significant Impact?
				ICU (v/c) or Delay (secs.)		Level of Service		ICU (v/c) or Delay (secs.)		Level of Service				
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	Hacienda Blvd./Amar Rd.	ICU:	TS	**0.936**	**1.102**	**E**	**F**	**0.949**	**1.116**	**E**	**F**	0.013	0.014	No
		HCM:	TS	41.5	**57.4**	D	**E**	42.6	**60.2**	D	**E**			
2	Hacienda Blvd./Nelson Ave.	ICU:	TS	**0.941**	0.822	**E**	D	**0.942**	0.823	**E**	D	0.001	0.001	No
		HCM:	TS	39.4	29.8	D	C	39.5	34.4	D	C			
3	Hacienda Blvd./Valley Blvd.	ICU:	TS	**1.118**	**1.205**	**F**	**F**	**1.121**	**1.206**	**F**	**F**	0.003	0.001	No
		HCM:	TS	**68.5**	**102.0**	**E**	**F**	**69.8**	**102.2**	**E**	**F**			
4	New Echelon St./Loukelton St.	HCM:	CSS	Future Intersection				9.6	8.8	A	A			N/A
5	Echelon Ave./Amar Rd.	ICU:	TS	0.893	0.733	D	C	0.899	0.756	D	C	0.006	0.023	N/A
		HCM:	TS	19.9	20.9	B	C	19.9	23.2	B	C			
6	Echelon Ave./Loukelton St.	HCM:	AWS	17.7	8.2	C	A	25.9	8.6	D	A			N/A
7	Valinda Ave./Amar Rd.	ICU:	TS	0.813	0.872	D	D	0.820	0.877	D	D	0.007	0.005	N/A
		HCM:	TS	30.1	43.3	C	D	30.3	43.5	C	D			
8	Azusa Ave./Amar Rd.	ICU:	TS	0.844	**0.962**	D	**E**	0.849	**0.963**	D	**E**	0.005	0.001	No
		HCM:	TS	37.9	39.2	D	D	38.2	40.2	D	D			
9	Azusa Ave./Hurley St.	ICU:	TS	**1.067**	**1.088**	**F**	**F**	**1.069**	**1.091**	**F**	**F**	0.002	0.003	No
		HCM:	TS	41.8	53.7	D	D	41.9	54.3	D	D			

Source: Urban Crossroads 2016d, Table 7-1

*Notes: * **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).*

1. ICU reported as a volume-to-capacity ratio and HCM delay reported in seconds. ICU reported from Traffix (Version 8.0) and HCM from Synchro (Version 9.1). Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. ICU and HCM report for all signalized intersections; however, ICU utilized for purposes of determining significant impacts.

*2. TS = traffic signal; AWS = all way stop; CSS = cross-street stop; **CSS** = improvement*

3. To determine whether the addition of project traffic at a study intersection results in a significant impact, the following thresholds of significance consistent with the Los Angeles County CMP were utilized:

- A significant impact occurs at a signalized intersection if the addition of project trips causes the peak-hour LOS to fall from an acceptable LOS to an unacceptable LOS and the proposed project increases the demand (v/c) by 0.02 or more.

- A significant impact occurs at a signalized intersection if the addition of project trips to an intersection that is currently operating at an acceptable LOS (i.e., LOS E or F) causes the v/c to increase by 0.02 or more.

- A significant impact occur at an unsignalized intersection if the addition of project trips causes the peak-hour LOS to fall from an acceptable LOS to an unacceptable LOS.

- N/A = not applicable

b) *Less Than Significant Impact***.** The Los Angeles County Congestion Management Program (CMP) was issued by the Los Angeles County Metropolitan Transportation Authority in December 2010. All freeways and selected arterial roadways are designated elements of the CMP highway system. The CMP requires that individual development projects of potentially regional significance undergo a traffic impact analysis. Per the CMP transportation impact analysis guidelines, a significant impact may result and a traffic impact analysis is required under the following conditions:

- At CMP arterial monitoring intersections where the proposed project would add 50 or more vehicle trips during either the morning or evening weekday peak hours
- At CMP mainline freeway monitoring locations where the proposed project would add 150 or more vehicle trips, in either direction, during either the morning or evening weekday peak hours

The TIA completed for the proposed project evaluated the potential impacts to traffic and circulation associated with the development of the project and recommended improvements to mitigate impacts considered significant in comparison to established regulatory thresholds. The TIA follows Appendix D of the Los Angeles County Congestion Management Program. As discussed above and shown in the TIA, the proposed project would not result in any traffic-related significant impacts or result in conflicts with the Los Angeles County CMP.

c) *No Impact.* The proposed project involves construction and operation of seven industrial/warehouse buildings with heights ranging from 32 to 36 feet, which would not result in a change in air traffic patterns or an increase in air traffic levels. There are no airports in the immediate project vicinity. The nearest public airport is El Monte Airport, over 6 miles northwest of the site (Airnav 2016). The proposed project would not create any structures that would interfere with air travel or air safety. No impact would occur.

d) *Less Than Significant Impact With Mitigation Incorporated*. The project is proposed to access Loukelton Street via New Echelon Street, which is proposed to be a new public street that would provide access to the site. Each of the buildings proposed as part of the project include two to five dock doors each, which would likely be utilized by delivery trucks (WB-50). A WB-50 (industry design vehicle standard) truck is a large semitrailer, measuring approximately 55 feet in length. Because of typical wide turning radius of trucks, a truck turning template was used by the TIA to determine turning radius. This analysis determined that the project driveway (New Echelon Street) and the site-adjacent intersection of Echelon Avenue and Loukelton Street are anticipated to accommodate the wide turning radius of the trucks with the proposed and existing curb radius. As such, the proposed project would not result in an increase in hazards due to design features or incompatible uses.

The site-adjacent roadway of Loukelton Street is currently built to its ultimate number of travel lanes as indicated in the City of Industry General Plan Circulation Element. However, because of the number of new vehicles entering/existing the site, mitigation measure **MM TRF-1** is required to reduce the potential for increased traffic hazards at the site driveway.

e) *No Impact.* As shown in Exhibit 1-1 of the TIA, the proposed project's access and circulation features would accommodate emergency ingress and egress by fire trucks, police units, and ambulance/paramedic vehicles. Emergency vehicles would enter the project site using the emergency access only driveway entrance on Loukelton Street. All emergency access

features are subject to and must satisfy the City of Industry design requirements and be approved by the LACFD. No impacts would occur.

f) *Less Than Significant Impact.* The study area is currently served by the Foothill Transit Bus Service with routes along Hacienda Boulevard, Amar Road, and Azusa Avenue. The study area is also served by the Metro Line bus along Valley Boulevard. Metrolink (Riverside Line), Amtrak Sunset Limited/Texas Eagle, and Union Pacific run through the study area as well, north of State Route (SR) 60. The Puente Hills Mall TransCenter is located on Azusa Avenue, south of SR 60. As shown on Exhibit 3-1 of the TIA (see **Appendix E**), there are four bus stops on Amar Road less than 0.2 mile from the project site. As discussed in subsection XIII, Population and Housing, the proposed project is anticipated to employ approximately 165 persons. While some of these employees may use public transit to get to the site, the project would not result in a substantial increase in the use of public transit. Additionally, the project would not result in the removal of existing bus stops. As such, the project would not conflict with adopted plans, policies, or programs for public transit.

Class II bikeways, also referred to as "bike lanes," are intended to delineate the right-of-way assigned to bicyclists and motorists and to provide for more predictable movements of each. Bike lane signs and pavement marking help define the bikeway along Class II bike routes. There are no existing Class II bike lanes in the study area. As shown on Exhibit 3-10 of **Appendix E**, there is an existing Class III (shared on-road lanes, not striped) facility along Temple Avenue outside of the city boundary. Also as shown on Exhibit 3-11 of **Appendix E**, portions of Amar Road and Valinda Avenue within the study area are also classified as bike routes. The Los Angeles County Bicycle Master Plan shown on Exhibit 3-12 also shows additional bikeways in the study area. Per Exhibits 3-10 and 3-11 (**Appendix E**), none of these bikeways are adjacent to the project site. However, Exhibit 3-12 appears to show a Class I bike path along the northern boundary of the project site. Further investigation indicates that this 2.2-mile proposed bike path is from Hacienda Boulevard to Azusa Avenue along Puenta Creek approximately 180 feet north of the project site (Los Angeles County 2012, Table 3-9). The proposed project would not impede the construction of this bike path. Therefore, the proposed project would have no impact to adopted policies, plans, or programs for bicycle facilities.

Because of the project site's proximity to the existing William Workman High School, located immediately to the south on Temple Avenue, additional field observations were made in the proximity of the school during the morning drop-off period. In addition, pedestrian and bicycle counts were obtained to be used for the HCM 2010 analysis.

Based on the field review, there appear to be no heavy periods of queuing/congestion along southbound Echelon Avenue and westbound Loukelton Street during the 10- to 15-minute period before the start of school. An existing access road located adjacent to the western terminus of Loukelton Street leads to and from the high school. The access road is also gated and only opened during the morning pickup and afternoon drop-off periods. Southbound Echelon Avenue did not have any more than 8 passenger cars queued (approximately 200 feet of storage) at any given time during the morning drop-off period. The intersection of Echelon Avenue and Loukelton Street is also marked with school zone crosswalks to be used by students and parents.

Pedestrian facilities along Loukelton Street, adjacent to the project's northern boundary, include a sidewalk. Site improvements include an access roadway (New Echelon Street), which would remove a portion of the sidewalk. However, a stop sign and hatched striping for a crosswalk at the intersection of Loukelton Street and New Echelon Street will be marked in a fashion to direct pedestrians and bicyclists to a safe path of travel. Additionally, New Echelon

Street will have sidewalks along each side of the street. The proposed project would not result in changes to the existing crosswalk facilities or access to the school from the surrounding roadways. Implementation of the proposed project would not cause an increase in hazards to existing pedestrian facilities. The project would have a less than significant impact.

Mitigation Measures

MM TRF-1 *New Echelon Street/Loukelton Street:* The project applicant shall install a stop control on the northbound approach and construct the intersection with the following geometrics:

- Northbound approach: One shared left-right turn lane
- Southbound approach: Not applicable (N/A)
- Eastbound approach: One shared through-right turn lane
- Westbound approach: One shared left-through lane

Timing/Implementation: *Prior to issuance of certificate of occupancy*

Enforcement/Monitoring: *City of Industry Planning Department and City Engineer*

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

a) *No Impact*. The project would not develop a land use that requires on-site wastewater treatment separate from the treatment provided by the Sanitation Districts of Los Angeles County (LACSD). Relatively small volumes of wastewater from restrooms, office kitchens, and cleaning activities would be sewered and directed to the nearest LACSD treatment plant for routine treatment prior to discharge. Wastewater treatment requirements for discharges to stormwater from project construction are discussed in Issue b) in subsection VI, Geology and Soils. The project would prepare and implement a SWPPP in compliance with the General Construction Permit. Wastewater treatment requirements for discharges to stormwater from project operations are discussed in Issue a) in subsection IX, Hydrology and Water Quality. The project would comply with City of Industry Municipal Code requirements governing wastewater discharges. No impact would occur.

b) *Less Than Significant Impact*. The proposed project would not require the construction or expansion of water treatment facilities. See Issue a) above. A less than significant impact would occur.

c) *Less Than Significant Impact.* The proposed project would require attaching an extension to an existing storm drain to manage stormwater flow. The existing storm drain runs west across Loukelton Street; the proposed extension will take place on the northwest side of the project site, extending 24 inches to the existing storm drain. The existing curb and gutter collection system have sufficient capacity to manage current and projected runoff from the site (see Issue d) in subsection IX, Hydrology and Water Quality). The construction of the extension leading to the existing storm drain is minor and will not cause significant environmental effects. The purpose of the extension is to provide on-site stormwater runoff accessibility to the already existing storm drain system and will not have a substantial effect on the system's flow, capacity, or efficiency. Therefore, a less than significant impact is anticipated.

d) *Less Than Significant Impact.* The project site is consistent with the General Plan growth projections for the City of Industry and therefore consistent with the water demand projections set forth in the RWD (2016) Urban Water Management Plan. The water demand would be associated with employee activities (i.e., bathroom and kitchen facilities), maintenance and cleaning activities, and landscape irrigation. The proposed project would be required to conform to Chapter 13.18 (Water Efficient Landscapes) of the City of Industry Municipal Code and with the City's Water Efficient Landscape Guidelines. For example, one of the City's water efficiency measures states that water usage should be minimized through the planting of native and low-water species and the utilization of water-efficient and drip irrigation systems.

The project applicant would be required to obtain a will-serve letter from the Rowland Water District to ensure sufficient water is available to serve the project. Receipt of such a letter would confirm that water supplies are adequate, and impacts would be less than significant.

e) *Less Than Significant Impact.* The existing LACSD wastewater treatment facility has sufficient capacity to meet the incremental wastewater volume expected to be generated by the project. Impacts would be less than significant.

f) *Less Than Significant Impact*. The LACSD provides solid waste disposal services to the City of Industry, including the project site. Solid waste generated by the proposed project would be processed by one or more facilities that currently serve the waste management needs of the community, including the Puente Hills Materials Recovery Facility, Downey Area Recycling and Transfer Facility, South Gate Transfer Station, and Commerce Refuse-to-Energy Facility. Despite the recent closure of the Puente Hills Landfill in October 2013, the LACSD has indicated that the network of existing waste management facilities is adequate to meet the region's needs in the short term. Long-term waste disposal needs would be met by exporting solid waste to the Mesquite Regional Landfill in Imperial County by rail via the Puente Hills Intermodal Facility, which is nearing completion in the City of Industry. The Puente Hills Intermodal Facility would be able to handle up to 8,000 tons per day of solid waste, while the Mesquite Regional Landfill, with a 100-year capacity, would be permitted to accept 20,000 tons per day (LACSD 2016).

Solid waste would be generated during both the construction and operational phases of the proposed project. The volume of solid waste generated during construction would be relatively minor, since project development would only require the demolition of an existing 2,800-square-foot building.

The project would be required to adhere to the City of Industry's waste reduction measures. For example, as outlined in Section 17.36.060.Z (Recycling Bin Enclosures) of the City of Industry Municipal Code, all industrial buildings are required to provide a recycling bin in an enclosed storage area. The project includes a trash enclosure and recycling area. The design of the trash enclosure would be subject to City review and approval as part of the Development

Plan review process. Additionally, the proposed project would be required to comply with the provisions of the 2013 Green Building Standards Code (California Code of Regulations Title 24, Part 11), which outlines requirements for construction waste reduction, material selection, and natural resource conservation. The LACSD's existing and proposed solid waste disposal capacity is adequate to accommodate the incremental volume of solid waste that would be generated by the proposed project. The project would not require the development of additional landfill capacity beyond that which is already planned. Therefore, project impacts would be less than significant.

g) *No Impact*. The US Environmental Protection Agency administers the Resource Conservation and Recovery Act of 1976 and the Solid Waste Disposal Act of 1965, which govern solid waste disposal. In California, Assembly Bill (AB) 939—the Integrated Solid Waste Management Act of 1989, Public Resources Code 40050 et seq.—required every California city and county to divert 50 percent of its waste from landfills by the year 2000 by such means as recycling, source reduction, and composting. AB 939 also requires California counties to show 15 years of disposal capacity for all jurisdictions within the county or to provide a plan to transform or divert its waste. AB 1327, the California Solid Waste Reuse and Recycling Access Act of 1991, requires local agencies to adopt ordinances mandating the use of recyclable materials in development projects.

The proposed project would be required to comply with all applicable laws and regulations governing solid waste management and disposal, including those listed above. More specifically, the proposed project would not affect the City of Industry's ability to continue to meet the required AB 939 waste diversion requirements as it has in the past (CalRecycle 2012). For example, the proposed project would help the City achieve its source reduction, recycling, and waste stream diversion goals for solid waste through the provision and use of an on-site recycling bin, as noted in Issue f) above. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐

a) *Less Than Significant Impact.* Project approval would allow the development of seven industrial/warehouse buildings in a fully urbanized area of the City of Industry. With the exception of the vacant 2,800 square foot residential building, the project site consists of disturbed soils and no wildlife habitats are present on the site. Additionally, the surrounding area is built out with commercial, industrial, and residential uses, and there are no undeveloped areas in the vicinity of the project site. Natural communities and populations of rare or threatened plant or animal species do not exist on or near the project site and would therefore not be impacted. Additionally, the site does not meet the criteria to be considered historically significant. A less than significant impact is anticipated.

b) *Less Than Significant Impact.* Project approval would allow the development of seven industrial/warehouse buildings in a fully urbanized area of the city. The proposed project would be consistent with the long-term goals of developing the project site with industrial uses in accordance with the City's General Plan. Therefore, the project would not place short-term goals above the City's long-term environmental goals. Additionally, the environmental issues relevant to the project are localized and confined to the immediate project area. Project development would not result in impacts that are individually limited but cumulatively considerable, as defined above. Therefore, no significant cumulatively considerable impacts are anticipated to result from the proposed project.

c) *Less Than Significant Impact.* This Initial Study identified that the proposed project is forecast, in most cases, to have less than significant impacts and in some cases no impacts associated with air quality, greenhouse gases, noise, and traffic. Therefore, less than significant impacts are anticipated to result from the proposed project.

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Appendices

Appendix A – AQ Report

Echelon Avenue Commerce Park

AIR QUALITY IMPACT ANALYSIS

CITY OF INDUSTRY

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JUNE 9, 2016

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LIST OF ABBREVIATED TERMS

(1)	Reference
µg/m3	Microgram per Cubic Meter
AADT	Annual Average Daily Trips
AQIA	Air Quality Impact Analysis
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
BMPs	Best Management Practices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DPM	Diesel Particulate Matter
EPA	Environmental Protection Agency
LST	Localized Significance Threshold
MMs	Mitigation Measures
NAAQS	National Ambient Air Quality Standards
NO2	Nitrogen Dioxide
NOx	Oxides of Nitrogen
Pb	Lead
PM10	Particulate Matter 10 microns in diameter or less
PM2.5	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Echelon Avenue Commerce Park
ROG	Reactive Organic Gases
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIPs	State Implementation Plans
SRA	Source Receptor Area
TAC	Toxic Air Contaminant

TIA	Traffic Impact Analysis
TOG	Total Organic Gases
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

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EXECUTIVE SUMMARY

CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project will exceed the numerical thresholds of significance established by the South Coast Air Quality Management District (SCAQMD) for emissions of Nitrogen Oxides (NOx) only prior to implementation of applicable mitigation measures (MMs).

The proposed mitigation measure MM AQ-1 is recommended to reduce the impacts to less than significant levels. After implementation of MM AQ-1, construction activity emissions will not exceed the numerical thresholds established by the SCAQMD for any phase of construction activity. Thus a less than significant impact will occur with the implementation of MM AQ-1. This finding does not conflict with the significant and unavoidable impact finding with respect to air quality from construction activity that was made in the City of Industry General Plan Update EIR. The overall air quality impacts of the proposed Project would be less than what was disclosed in the General Plan Update EIR.

LOCALIZED IMPACTS

Without MMs, emissions during construction activity would not exceed the SCAQMD's localized significance threshold for any criteria pollutant. After implementation of MM AQ-1, the emissions resulting from short-term construction activity will be further reduced. A less than significant impact would occur without or with implementation of applicable mitigation.

Project construction-source emissions would not conflict with the applicable Air Quality Management Plan (AQMP).

ODORS

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would not exceed the regional thresholds of significance established by the SCAQMD for any criteria pollutant. Thus a less than significant impact would occur for Project-related operational-source emissions and no mitigation is required. This finding does not conflict with the significant and unavoidable impact finding with respect to air quality from operational activity that was made in the City of Industry General Plan Update EIR.

The overall air quality impacts of the proposed Project would be less than what was disclosed in the General Plan Update EIR.

LOCALIZED IMPACTS

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would not result in a significant CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8, thus a less than significant impact to sensitive receptors during operational activity is expected. Lastly, Project operational-source emissions would not conflict with the applicable AQMP.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy business park uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (1). Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

1 INTRODUCTION

This report presents the results of the air quality impact analysis (AQIA) prepared by Urban Crossroads, Inc., for the proposed Echelon Avenue Commerce Park Development ("Project").

The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the proposed Project, recommend measures to mitigate impacts considered potentially significant in comparison to established regulatory thresholds, and to compare the Project impacts with the project impacts analyzed and disclosed in the Industry General Plan Update EIR.

1.1 SITE LOCATION

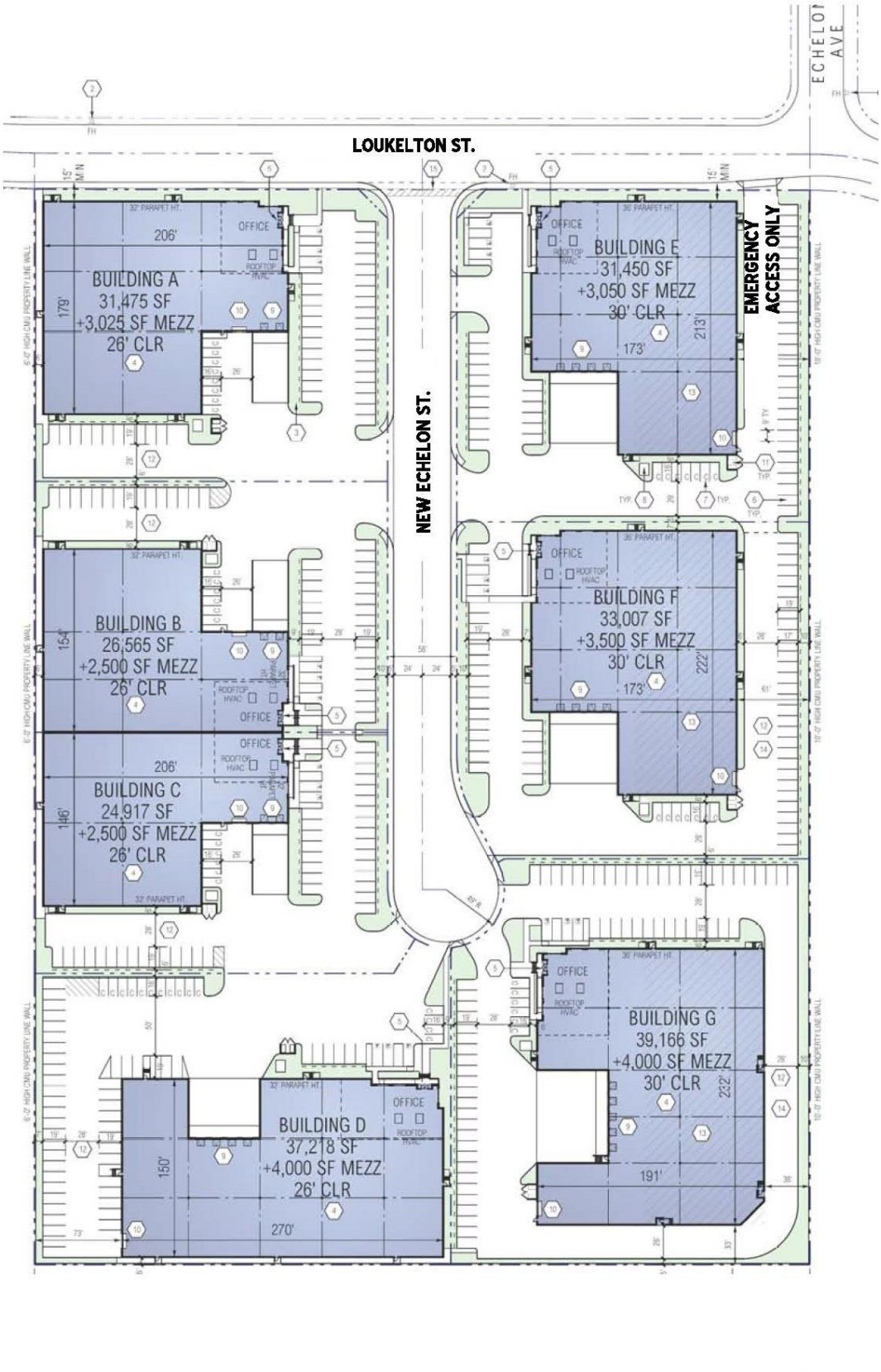
The proposed Echelon Avenue Commerce Park site is located at the southwest corner of Echelon Avenue and Loukelton Street in the City of Industry, as shown on Exhibit 1-A. The Project site is bounded by residential units to the east and west, William Workman High School to the south, and industrial buildings to the north. Currently there is a single, unoccupied residence on the northeast corner of the Project site that will be demolished in order to facilitate construction of the Project.

1.2 PROJECT DESCRIPTION

It is our understanding that the Project is proposed to consist of 246,373 square feet (sf) of business park spread over seven (7) buildings, as shown on Exhibit 1-B. Each individual building is between 27,417 sf and 43,166 sf in size with 2-5 dock doors, indicating low truck generating users (in comparison to heavy warehouse or other industrial land uses). For the purposes of this analysis, it is assumed that the Project will be fully constructed and occupied by early 2018.

EXHIBIT 1-A: LOCATION MAP

EXHIBIT 1-B: PRELIMINARY SITE PLAN



1.3 CONSTRUCTION-SOURCE MITIGATION MEASURES

MM AQ-1

During construction activity, all crawler tractors and rubber tired dozers shall be California Air Resources Board (CARB) Tier 3 Certified or better. Additionally, during grading activity, the maximum disturbance (actively disturbed) area shall not exceed 5 acres per day for grading activity and 3.5 acres for site preparation activity.

1.4 OPERATIONAL-SOURCE MITIGATION MEASURES

The Project would not result in any significant impacts during operational activity. Therefore, no mitigation measures are required.

1.5 CITY OF INDUSTRY GENERAL PLAN UPDATE MITIGATION MEASURES

The following applicable mitigation measures are from the City of Industry General Plan Update Environmental Impact Report (EIR) and are required for the Project.

Mitigation Measure 2-1

If, during subsequent project-level environmental review, construction related criteria air pollutants are determined to have the potential to exceed the South Coast Air Quality Management District (SCAQMD) adopted thresholds of significance, the City of Industry Planning Department will require that applicants for new development projects incorporate mitigation measures as identified in the CEQA document prepared for the project to reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include, but are not limited to:

- Requiring fugitive dust control measures that exceed SCAQMD's Rule 403, such as:
    - Requiring use of nontoxic soil stabilizers to reduce wind erosion.
    - Applying water every four hours to active soil-disturbing activities.
    - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Using construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards.
- Limiting nonessential idling of construction equipment to no more than five consecutive minutes.
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the SCAQMD's website at: http://www.aqmd.gov/prdas/brochures/Super-Compliant_AIM.pdf.

Mitigation Measure 2-1

New industrial or warehousing land uses that: 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units (TRUs), and 2) are located within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, will submit a health risk assessment (HRA) to the City of Industry Planning Department prior to future discretionary project approval. The HRA will be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds one in one hundred thousand (1.0E-05) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that Best Available Control Technologies for Toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA will be identified as mitigation measures in the environmental document and/or incorporated into the development plan as a component of the proposed project.

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2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (2). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As discussed above, the Project site is located within the South Coast Air Basin, a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The larger South Coast district boundary includes 10,743 square miles.

The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bound by the San Gabriel Mountains to the south and west, the Los Angeles / Kern County border to the north, and the Los Angeles / San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bound by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s (degrees Fahrenheit). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14 1/2 hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NOX and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

2.4 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated and in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well health effects of each pollutant regulated under these standards are shown in Table 2-1 (3) (4).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O3, CO, SO2, NO2, PM10, and PM2.5 are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O3, PM10, PM2.5, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O3 standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

Ambient Air Quality Standards						
Pollutant	**Averaging Time**	**California Standards [1]**		**National Standards [2]**		
		Concentration [3]	**Method [4]**	**Primary [3,5]**	**Secondary [3,6]**	**Method [7]**
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page …

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (10/1/15)**

TABLE 2-1: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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2.5 REGIONAL AIR QUALITY

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the air district. In 2015, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone, PM10, and PM2.5 at most monitoring locations (5). No areas of the SCAB exceeded federal or state standards for NO2, SO2, CO, sulfates or lead. See Table 2-2 for attainment designations for the SCAB (6) (7). Appendix 3.2 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

TABLE 2-2: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN (SCAB)

Criteria Pollutant	State Designation	Federal Designation
Ozone - 1hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead[1]	Attainment	Nonattainment

Source: State/Federal designations were taken from http://www.arb.ca.gov/desig/adm/adm.htm
Note: See Appendix 3.2 for a detailed map of State/National Area Designations within the South Coast Air Basin

2.6 LOCAL AIR QUALITY

Relative to the Project site, the nearest long-term air quality monitoring site for Ozone (O_3), Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), and Ultra-Fine Particulates ($PM_{2.5}$) is the South Coast Air Quality Management District South San Gabriel Valley monitoring station, located approximately 7.60 miles west of the Project site in Pico Rivera (SRA 11). Data for Particulate Matter ≤ 10 Microns (PM10) was obtained from the East San Gabriel Valley 1 monitoring station (SRA 9) located approximately 7.50 miles northeast of the Project site. It should be noted that the East San Gabriel Valley 1 monitoring stations were utilized in lieu of the South San Gabriel Valley monitoring station only in instances where data was not available.

The most recent three (3) years of data available is shown on Table 2-3 and identifies the number of days ambient air quality standards were exceeded for the study area, which is was considered to be representative of the local air quality at the Project site (5) (8). Additionally, data for SO2 has been omitted as attainment is regularly met in the South Coast Air Basin and few monitoring stations measure SO2 concentrations.

[1] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2013-2015

POLLUTANT	STANDARD	YEAR		
		2013	2014	2015
Ozone (O_3)				
Maximum 1-Hour Concentration (ppm)		0.101	0.121	0.107
Maximum 8-Hour Concentration (ppm)		0.072	0.092	0.081
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	2	7	6
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	12	7	11
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	0	0	0
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	0	5	2
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		--	4.0	--
Maximum 8-Hour Concentration (ppm)		2.0	2.5	--
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	0	0	--
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	--
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	--
Nitrogen Dioxide (NO_2)				
Maximum 1-Hour Concentration (ppm)		0.079	0.087	0.070
Annual Arithmetic Mean Concentration (ppm)		0.021	0.020	-
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM_{10})				
Maximum 24-Hour Concentration (µg/m^3)		76	96	76
Number of Samples		61	60	--
Number of Samples Exceeding State Standard	> 50 µg/m^3	6	22	2
Number of Samples Exceeding Federal Standard	> 150 µg/m^3	0	0	0
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)				
Maximum 24-Hour Concentration (µg/m^3)		29.1	35.1	52.7
Annual Arithmetic Mean (µg/m^3)		11.56	--	11.5
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m^3	0	0	3

-- = data not available from either SCAQMD or ARB

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and effects are identified below:

- Carbon Monoxide (CO): Is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines,

unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

- Sulfur Dioxide (SO2): Is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO2 oxidizes in the atmosphere, it forms sulfates (SO4). Collectively, these pollutants are referred to as sulfur oxides (SOX).
- Nitrogen Oxides (Oxides of Nitrogen, or NOx): Nitrogen oxides (NOx) consist of nitric oxide (NO), nitrogen dioxide (NO2) and nitrous oxide (N2O) and are formed when nitrogen (N2) combines with oxygen (O2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO2 is the most abundant in the atmosphere. As ambient concentrations of NO2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO2 than those indicated by regional monitors.
- Ozone (O3): Is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOX), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- PM10 (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. PM10 also causes visibility reduction and is a criteria air pollutant.
- PM2.5 (Particulate Matter less than 2.5 microns): A similar air pollutant consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO2 release from power plants and industrial facilities and nitrates that are formed from NOX release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM2.5 is a criteria air pollutant.
- Volatile Organic Compounds (VOC): Volatile organic compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.

- Reactive Organic Gases (ROG): Similar to VOC, Reactive Organic Gases (ROG) are also precursors in forming ozone and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O3, which is a criteria pollutant. The SCAQMD uses the terms ROG and VOC (see previous) interchangeably.
- Lead (Pb): Lead is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. It should be noted that the Project is not anticipated to generate a quantifiable amount of lead emissions. Lead is a criteria air pollutant.

Health Effects of Air Pollutants

Ozone

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

Ozone exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes.

Reduction in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO, resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels; these include pre-term births and heart abnormalities.

Particulate Matter

A consistent correlation between elevated ambient fine particulate matter (PM10 and PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in PM2.5 concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM10 and PM2.5.

Nitrogen Dioxide

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO2.

Sulfur Dioxide

A few minutes of exposure to low levels of SO2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO2.

Animal studies suggest that despite SO2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO2 levels. In these studies, efforts to separate the effects of SO2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.

Odors

The science of odor as a health concern is still new. Merely identifying the hundreds of VOCs that cause odors poses a big challenge. Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.7 REGULATORY BACKGROUND

2.7.1 FEDERAL REGULATIONS

The U.S. EPA is responsible for setting and enforcing the NAAQS for O3, CO, NOx, SO2, PM10, and lead (3). The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955, and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (9). The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O3, NO2, SO2, PM10, CO, PM2.5, and lead. The NAAQS were amended in July 1997 to include an additional standard for O3 and to adopt a NAAQS for PM2.5. Table 2-1 (previously presented) provides the NAAQS within the basin.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NOx). NOx is a collective term that includes all forms of nitrogen oxides (NO, NO2, NO3) which are emitted as byproducts of the combustion process.

2.7.2 CALIFORNIA REGULATIONS

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However, at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (4) (3).

Local air quality management districts, such as the SCAQMD, regulate air emissions from commercial and light industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;

- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for ROGs, NOx, CO and PM10. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than five percent per year under certain circumstances.

2.7.3 AIR QUALITY MANAGEMENT PLANNING

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards (10). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.8.

2.8 REGIONAL AIR QUALITY IMPROVEMENT

The Project is within the jurisdiction of the SCAQMD. In 1976, California adopted the Lewis Air Quality Management Act which created SCAQMD from a voluntary association of air pollution control districts in Los Angeles, Orange, Riverside, and San Bernardino counties. The geographic area of which SCAQMD consists is known as the Basin. SCAQMD develops comprehensive plans and regulatory programs for the region to attain federal standards by dates specified in federal law. The agency is also responsible for meeting state standards by the earliest date achievable, using reasonably available control measures.

SCAQMD rule development through the 1970s and 1980s resulted in dramatic improvement in Basin air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls, and (iii) uniform CEQA review throughout the Basin. Industrial emission sources have been significantly reduced by this approach and vehicular emissions have been reduced by technologies implemented at the state level by CARB.

As discussed above, the SCAQMD is the lead agency charged with regulating air quality emission reductions for the entire Basin. SCAQMD created AQMPs which represent a regional blueprint for achieving healthful air on behalf of the 16 million residents of the South Coast Basin. The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its Air Quality Management Plans (AQMPs) and by utilizing uniform CEQA review throughout the Basin.

The 2012 AQMP states, "the remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs," (11). Ozone, NOx, VOC, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020 (12). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NOx and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NOx emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. Ozone contour maps show that the number of days exceeding the national 8-hour standard has decreased between 1997 and 2007. In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period. The overall trends of PM10 and PM2.5 in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM10 have remained somewhat constant in the Basin and direct emissions of PM2.5 have decreased slightly since 1975. Area wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions.

Ozone levels in the SCAB have decreased substantially over the last 30 years as shown in Table 2-4 (13). Today, the maximum measured concentrations are approximately one-third of concentrations within the late 70's.

As with other pollutants, the most recent PM10 statistics also show overall improvement as illustrated in Table 2-5. During the period for which data are available, the 24-hour national annual average decreased by almost 45 percent, from 103.7 $\mu g/m^3$ in 1989 to 57.6 $\mu g/m^3$ in 2014. Although the values in the late 1990's show some variability, this is probably due to meteorology rather than a change in emissions. Despite the overall decrease, ambient concentrations still exceed the State annual and 24-hour PM10 standards. Similar to the ambient concentrations, the calculated number of days above the 24-hour PM10 standards has also shown an overall drop. During 1995, there were 25 calculated days above the national standard. By 2014, there was one calculated national standard exceedance days (14).

Table 2-6 shows the most recent 24-hour average $PM_{2.5}$ concentrations (national) in the SCAB from 1999 through 2014. Overall, the annual average concentrations have decreased by almost 52 percent. The calculated number of days above the national standard also decreased, from about 88 days in 1999 to about 9 days in 2014. The SCAB is currently designated as nonattainment for the State and national $PM_{2.5}$ standards. Measures adopted as part of the upcoming $PM_{2.5}$ SIP, as well as programs to reduce ozone and diesel PM will help in reducing public exposure to $PM_{2.5}$ in this region.

The most recent carbon dioxide concentrations in the SCAB 1986 are shown in Table 2-7 (15). Carbon monoxide concentrations in the SCAB have decreased markedly — a total decrease of more about 80 percent in the peak 8-hour concentration since 1986. The number of exceedance days has also declined. The entire SCAB is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

TABLE 2-4: SOUTH COAST AIR BASIN OZONE TREND

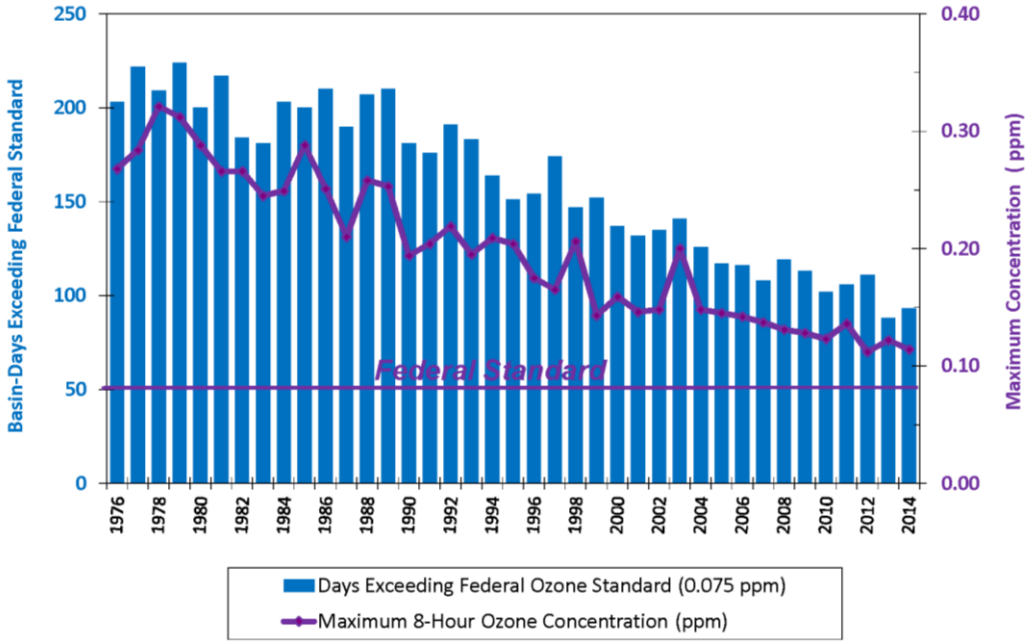


TABLE 2-5: SOUTH COAST AIR BASIN PM_{10} TREND

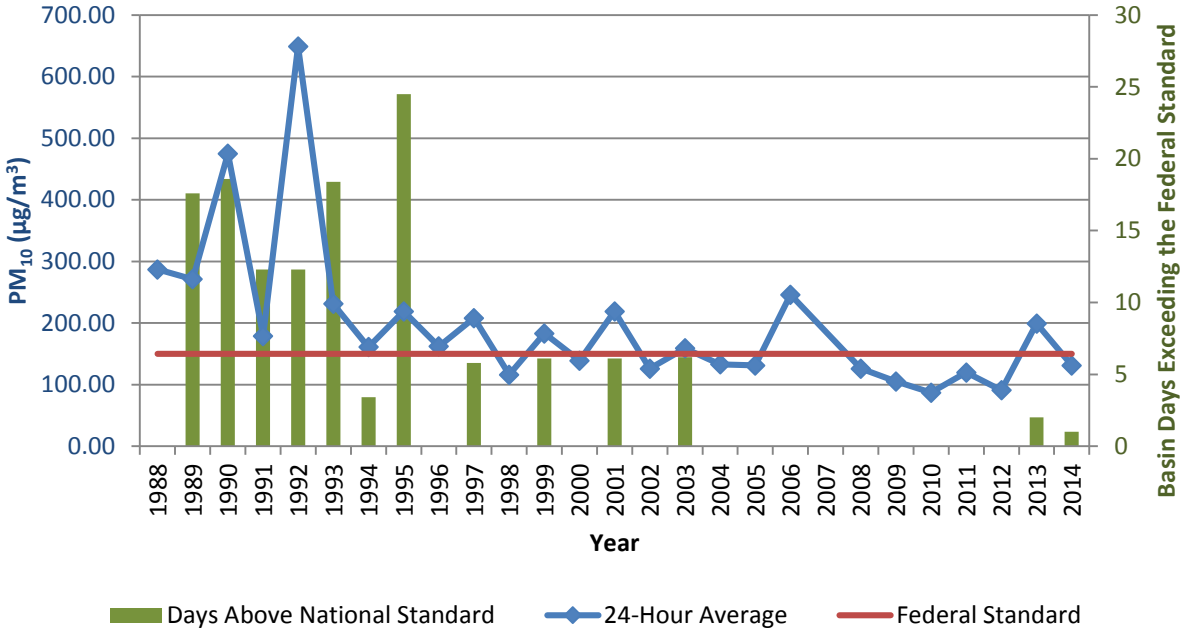


TABLE 2-6: SOUTH COAST AIR BASIN $PM_{2.5}$ TREND

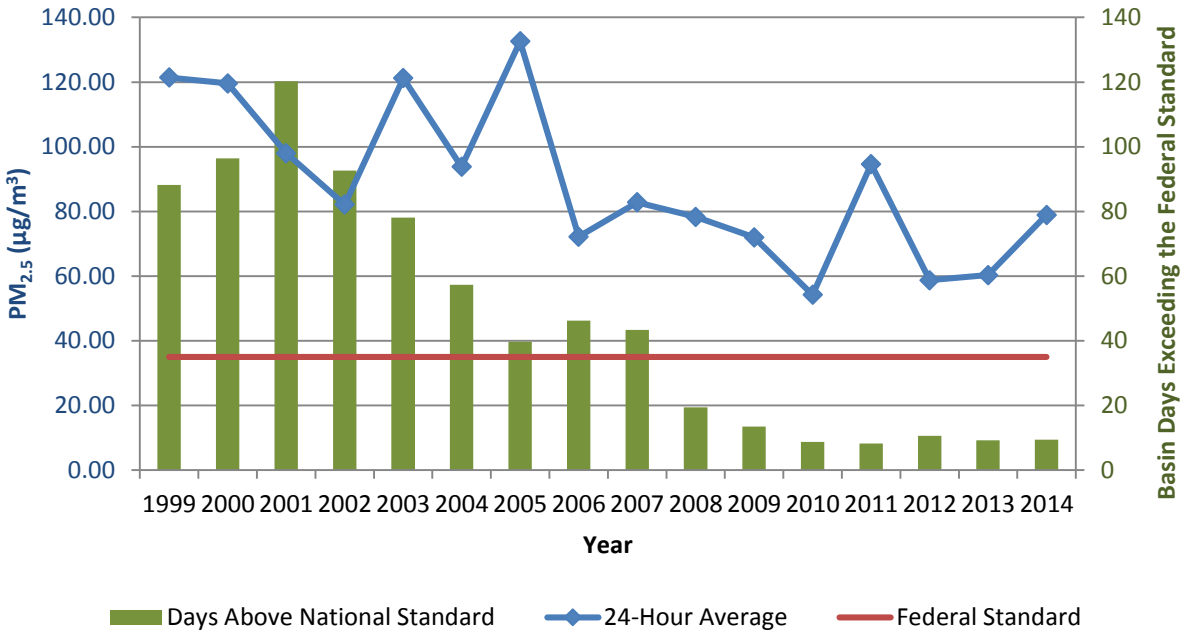
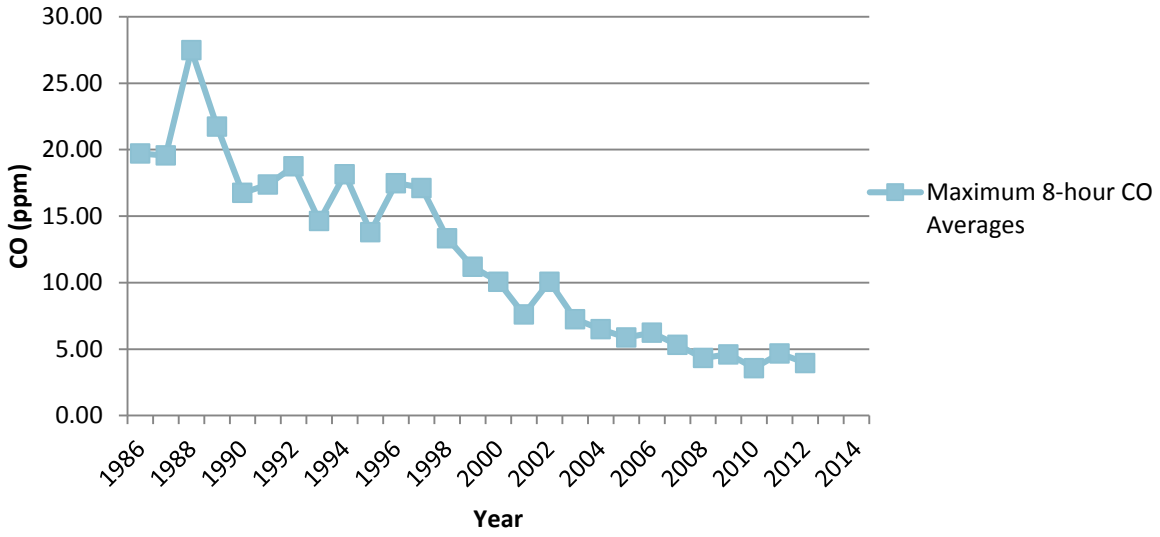


TABLE 2-7: SOUTH COAST AIR BASIN CARBON MONOXIDE TREND



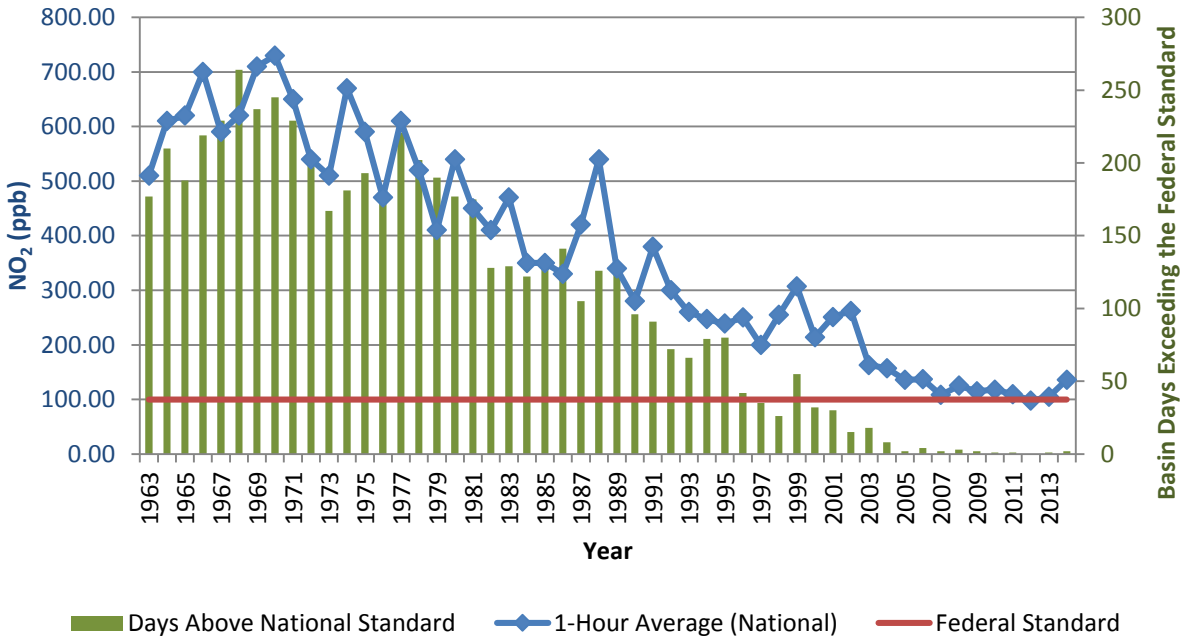
Part of the control process of the SCAQMD's duty to greatly improve the air quality in the Basin is the uniform CEQA review procedures required by SCAQMD's CEQA Handbook (16). The single threshold of significance used to assess Project direct and cumulative impacts has in fact "worked" as evidenced by the track record of the air quality in the Basin dramatically improving over the course of the past decades. As stated by the SCAQMD the District's thresholds of

significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for this Project.

The most recent NO_2 data for the SCAB is shown in Table 2-8 (15). Over the last 50 years, NO_2 values have decreased significantly; the peak 1-hour average for 2013 was almost 74 percent lower than what it was during 1963. The SCAB attained the State 1-hour NO_2 standard in 1994, bringing the entire State into attainment. A new state annual average standard of 0.030 parts per million was adopted by the ARB in February 2007 (17). The new standard is just barely exceeded in the South Coast. NO_2 is formed from NO_x emissions, which also contribute to ozone. As a result, the majority of the future emission control measures will be implemented as part of the overall ozone control strategy. Many of these control measures will target mobile sources, which account for more than three-quarters of California's NO_x emissions. These measures are expected to bring the South Coast into attainment of the State annual average standard.

The American Lung Association website includes data collected from State air quality monitors that are used to compile an annual State of the Air report. These reports have been published over the last 13 years. The latest State of the Air Report compiled for the Basin was in 2010 (18). As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. The area's average number of high ozone days dropped from 189.5 day per year in the initial 2000 State of the Air report (1996–1998) to 141.8 in the 2006–2008 report. The region has seen dramatic reduction in particle pollution since the initial State of the Air report (18).

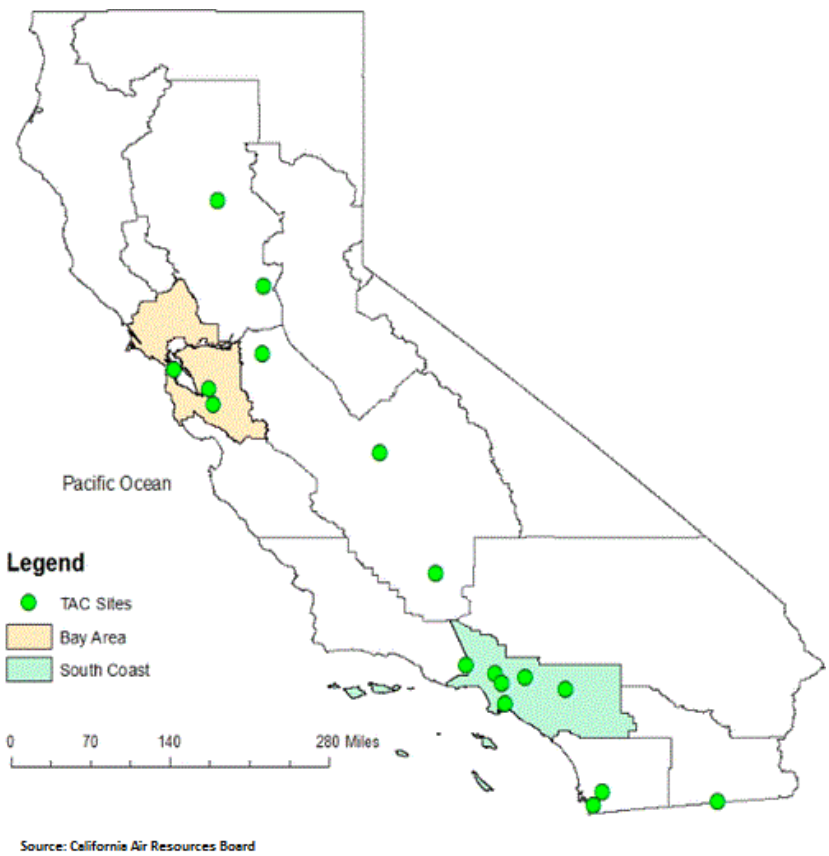
TABLE 2-8: SOUTH COAST AIR BASIN NITROGEN DIOXIDE TREND



TOXIC AIR CONTAMINANTS (TACS) TRENDS

In 1984, as a result of public concern for exposure to airborne carcinogens, the CARB adopted regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products. According to the *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly (19). The seven TACs studied shown below include those that are derived from mobile sources: diesel particulate matter (DPM), benzene, and 1,3-butadiene; those that are derived from stationary sources: perchloroethylene and hexavalent chromium; and those derived from photochemical reactions of emitted VOCs: formaldehyde and acetaldehyde[2]. TACs data was gathered at monitoring sites from both the Bay Area and South Coast Air Basins, as shown on Exhibit 2-A; Several of the sites in the SCAB include Reseda, Compton, Rubidoux, Burbank, and Fontana. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

EXHIBIT 2-A: CALIFORNIA TOXIC AIR CONTAMINANT SITES



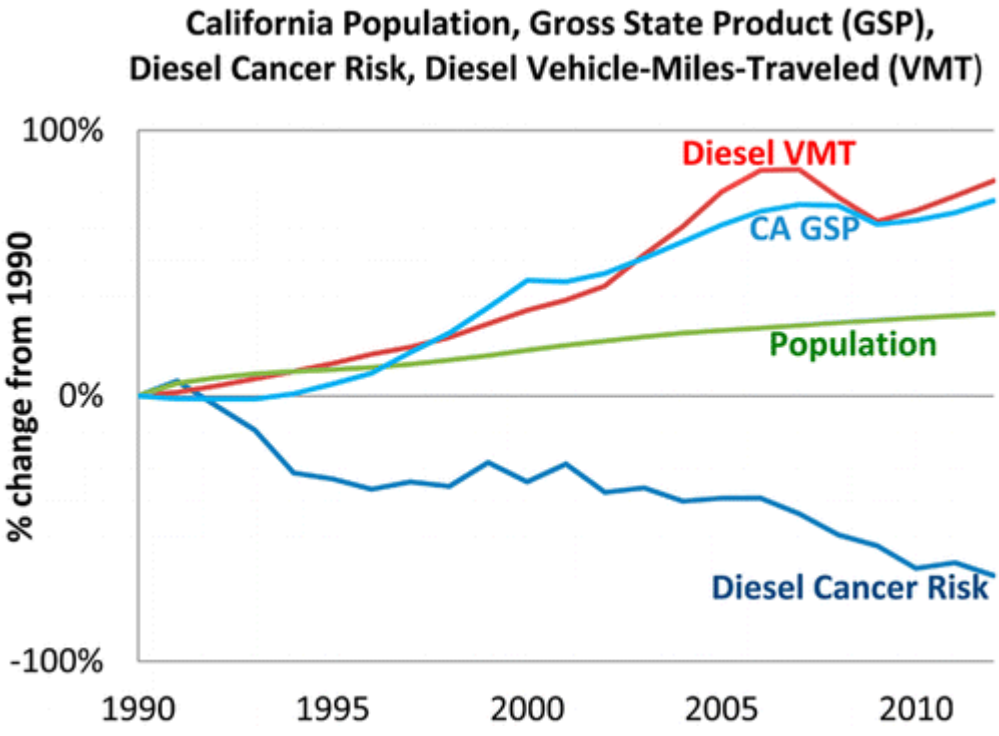
[2] It should be noted that ambient DPM concentrations are not measured directly. Rather, a surrogate method using the coefficient of haze (COH) and elemental carbon (EC) is used to estimate DPM concentrations.

Mobile Source TACs

The CARB introduced two programs that aimed at reducing mobile emissions for light and medium duty vehicles through vehicle emissions controls and cleaner fuel. Since 1996, light-duty vehicles sold in California are equipped with California's second-generation On-Board Diagnostic (OBD-II) system as a result of about half of total car emissions stemming from emissions control device malfunctions. CARB's phase II Reformulated Gasoline (RFG-2) regulation, adopted in 1996, also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012. 1,3-Butadiene concentrations also declined 85% from 1990-2012 as a result of the motor vehicle regulations (19).

In 2000, CARB's Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68%, even though the state's population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on Exhibit 2-B. With the implementation of these diesel-related control regulations, ARB expects a DPM decline of 71% for 2000-2020.

EXHIBIT 2-B: DIESEL PARTICULATE MATTER AND DIESEL VEHICLE MILES TREND



Source: California Air Resources Board

Stationary Source TACs

Various regulations led to a decrease in perchloroethylene and hexavalent chromium, with a 92% and 86% decline, respectively. By 1993, several local air districts required dry cleaning businesses to use a carbon absorber and refrigerated condenser, as well as, dry-to-dry

machines and closed-looped machines instead of vented transfer machines. Starting in 2003, California provided financial incentives for dry cleaners to use other solvents and soon after, the CARB banned the use of perchloroethylene in automotive products, aerosol coatings, and most consumer products. In 2007, CARB's dry cleaning regulation was amended to require phase-out of perchloroethylene machines by 2023, which would further reduce emissions to minimal levels (19).

Hexavalent chromium emissions began to decline in 1988 with the ARB-regulated regulations contributing to more than 97% emission reduction within four years. The various regulations include prohibiting the use of hexavalent chromium in cooling towers (1989), in motor vehicle and mobile equipment coatings (2001), and in thermal spraying operations (2005). By 2005, hexavalent chromium emissions were 99.97% less than in 1987, far exceeding expectations. In 2006, hexavalent chromium emissions were further reduced with the 2006 ARB regulation requiring add-on air pollution control devices and chemical fume suppressants.

Secondary TACs

Between 1996-2012, ambient concentrations of formaldehyde and acetaldehyde declined 22% and 21%, respectively. The decline in these TACs are attributed from increasingly stringent motor vehicle exhaust emission standards, vehicle fleet turnover, fuel reformulation, and the switch from MTBE (formaldehyde precursor) to ethanol in gasoline (19).

As previously discussed, ambient and emissions levels of TACs have reduced significantly from 1990-2012. The overall declining trend in TACs is expected to continue in California from implementation of toxic air controls.

DIESEL REGULATIONS

The CARB and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing diesel particulate matter (DPM). More specifically, the CARB Drayage Truck Regulation (20), the CARB statewide On-road Truck and Bus Regulation (21), and the Ports of Los Angeles and Long Beach "Clean Truck Program" (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet (22). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements.

Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HHDT), in terms of grams of DPM generated per mile traveled, will dramatically be reduced due to the aforementioned regulatory requirements.

Diesel emissions identified in this analysis would therefore overstate future DPM emissions since not all the regulatory requirements are reflected in the modeling.

CANCER RISK TRENDS

Based on information available from CARB, overall cancer risk throughout the basin has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment process, the State of California Air Resources Board (ARB) identified particulate matter from

diesel-fueled engines as a toxic air contaminant. The SCAQMD initiated a comprehensive urban toxic air pollution study, called MATES-II (for Multiple Air Toxics Exposure Study). Diesel particulate matter (DPM) accounts for more than 70 percent of the cancer risk.

In 2008 the SCAQMD prepared an update to the MATES-II study, referred to as MATES-III. MATES-III estimates the average excess cancer risk level from exposure to TACs is an approximately 17% decrease in comparison to the MATES-II study.

Nonetheless, the SCAQMD's most recent in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California was from the *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES IV,"* which shows that cancer risk has decreased more than 55% between MATES III (2005) and MATES IV (2012) (25).

MATES-IV study represents the baseline health risk for a cumulative analysis. MATES-IV calculated cancer risks based on monitoring data collected at ten fixed sites within the South Coast Air Basin (SCAB). None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES-IV modeling predicted an excess cancer risk of 873.61 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV. Cumulative Project generated TACs are limited to DPM.

2.9 EXISTING PROJECT SITE AIR QUALITY CONDITIONS

The Project site is currently vacant and as such, existing air quality conditions at the Project site would generally reflect ambient monitored conditions previously presented previously at Table 2-3.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will violate an air quality standard or contribute to an existing or projected air quality violation. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the SCAB is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (23):

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

The SCAQMD has developed regional and localized significance thresholds for regulated pollutants, as summarized at Table 3-1 (24). The SCAQMD's CEQA Air Quality Significance Thresholds (March 2015) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 3-1: MAXIMUM DAILY EMISSIONS THRESHOLDS[A]

Pollutant	Construction	Operations
Regional Thresholds		
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
Sox	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Localized Thresholds		
CO	1,423 lbs/day (site preparation)	1,814 lbs/day
	1,814 lbs/day (grading)	
NOx	152 lbs/day (site preparation)	183 lbs/day
	183 lbs/day (grading)	
PM10	11 lbs/day (site preparation)	4 lbs/day
	14 lbs/day (grading)	
PM2.5	7 lbs/day (site preparation)	2 lbs/day
	9 lbs/day (grading)	

[A]: Based on SCAQMD Air Quality Significance Thresholds, March 2015

3.3 PROJECT-RELATED SOURCES OF POTENTIAL IMPACT

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (25). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendix 3.1.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of CO, VOCs, NOx, SOx, PM10, and PM2.5. Construction related emissions are expected from the following construction activities:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Painting (Architectural Coatings)
- Construction Workers Commuting

Construction is expected to commence in January 2017 and will last through January 2018. The construction schedule utilized in the analysis, shown in Table 3-1, represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[3] The duration of construction activity, shown in Table 3-2, was estimated based on CalEEMod defaults and a 2018 opening year. The associated equipment list was based on CalEEMod defaults and previous project experience. The site specific construction fleet may vary due to specific project needs at the time of construction. The duration of construction activity and associated equipment both represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.1 of this analysis.

Dust is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions". Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). The CalEEMod model was utilized to calculate fugitive dust emissions resulting from this phase of activity. It is our understanding the Project will require 30,000 cubic yards of soil import. The Project site will also require demolition of a 2,800 square foot residential development prior to building construction.

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information from the applicant and the CalEEMod model.

3 As shown in the California Emissions Estimator Model (CalEEMod) User's Guide Version 2013.2, Table 3.4 "OFFROAD Equipment Emission Factors" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

TABLE 3-2: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Demolition	01/01/2017	01/13/2017	10
Site Preparation	01/14/2017	01/27/2017	10
Grading	01/28/2017	04/07/2017	50
Building Construction	04/08/2017	11/03/2017	150
Architectural Coating	11/04/2017	12/01/2017	20
Paving	12/02/2017	01/05/2018	25

TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Activity	Equipment	Number	Hours Per Day
Demolition	Concrete/Industrial Saw	1	8
	Excavators	3	8
	Rubber Tired Dozer	2	8
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozer	3	8
Grading	Crawler Tractors	2	8
	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	3	8
Building Construction	Cranes	2	8
	Forklifts	6	8
	Generator Sets	2	8
	Tractors/Loaders/Backhoes	6	8
	Welders	2	8
Paving	Pavers	2	8
	Rollers	2	8
	Paving Equipment	2	8
Architectural Coatings	Air Compressor	1	8

3.4.1 CONSTRUCTION EMISSIONS SUMMARY

Impacts Without Mitigation

Impacts without mitigation assume compliance with applicable SCAQMD Rules. The SCAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to: Rule 1113 (Architectural Coatings) (26); Rule 431.2 (Low Sulfur Fuel) (27); Rule 403 (Fugitive Dust) (28); and Rule 1186 / 1186.1 (Street Sweepers) (29). As such, credit for Rule 1113 and Rule 403 have been taken.

The estimated maximum daily construction emissions without mitigation are summarized on Table 3-4. Detailed construction model outputs are presented in Appendix 3.1. Under the assumed scenarios, emissions resulting from the Project construction would exceed criteria pollutant thresholds established by the SCAQMD for emissions of NO_x (before mitigation).

TABLE 3-4: EMISSIONS SUMMARY OF OVERALL CONSTRUCTION (WITHOUT MITIGATION)

Year	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2017	47.19	118.09	73.26	0.14	10.47	6.89
2018	47.13	2.85	4.47	9.05E-03	0.60	0.31
Maximum Daily Emissions	**47.19**	**118.09**	**73.26**	**0.14**	**10.47**	**6.89**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

Impacts With Mitigation

The estimated maximum daily construction emissions with mitigation are summarized on Table 3-5. Detailed construction model outputs are presented in Appendix 3.1. Mitigation measure MM AQ-1 is recommended to reduce the severity of the impact. After implementation of the appropriate mitigation measures, construction activity emissions would not exceed the numerical thresholds established by the SCAQMD for any criteria pollutants. Thus a less than significant impact would occur with implementation of MM AQ-1.

TABLE 3-5: EMISSIONS SUMMARY OF OVERALL CONSTRUCTION (WITH MITIGATION)

Year	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2017	47.19	98.22	73.01	0.14	8.56	5.19
2018	47.13	2.85	4.47	8.76E-03	0.60	0.31
Maximum Daily Emissions	**47.19**	**98.22**	**73.01**	**0.14**	**8.56**	**5.19**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of ROG, NOX, CO, SOX, PM10, and PM2.5. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions

3.5.1 AREA SOURCE EMISSIONS

Architectural Coatings

Over a period of time the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod model.

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within the CalEEMod model.

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.5.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model.

3.5.3 MOBILE SOURCE EMISSIONS

Vehicles

Project-related operational air quality impacts derive predominantly from mobile sources. In this regard, approximately 89 percent (by weight) of all Project operational-source emissions would be generated by mobile sources (vehicles). Neither the Project Applicant nor the City has any regulatory control over these tail pipe emissions. Rather, vehicle tail pipe source emissions are regulated by CARB and USEPA. As summarized previously herein, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve.

Project mobile source air quality impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Echelon Avenue Commerce Park Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (30). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis.

For the Business Park land use, the vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project would be approximately 81% passenger cars and approximately 19% total trucks. For analysis purposes, 53.15% of all trucks are assumed to be Light-Heavy-Duty (LHD), 4.74% of all trucks are assumed to be Medium-Heavy-Duty (MHD), and 42.11% of all trucks are assumed to be Heavy-Heavy-Duty (HHD). This proportional truck mix by axle type is based on information provided in the Project's traffic study.

3.5.3.1 Trip Length

Background

A technical deficiency inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project x average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because, for a distribution warehouse center such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.

Provided below is a summary of the VMT recommendations of the SCAQMD and SCAG, followed by a description of the methodology used to calculate the VMT rates used in this AQIA.

SCAQMD Recommendation

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and business park land use projects (31). The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and business park land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod™ and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length.

Southern California Association of Government (SCAG) Heavy Duty Truck Model

SCAG is comprised of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 190 cities in Southern California, and is the organization charged with addressing and resolving short- and long-term regional policy issues. The SCAG region also consists of 14 subregional entities recognized by the Regional Council as partners in the regional policy planning process. The SCAG region has more than 19 million residents and encompasses more than 38,000 square miles, representing the largest and most diverse region in the country.

SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks.

Approach for Analysis of the Project

Trip lengths and VMT estimates employed in this AQIA report generate vehicular-source emissions that would represent a maximum impact scenario. Other Environmental Impact Reports (EIRs) for similar land use projects within the region have utilized these same or similar estimates. Though the VMT analyzed in this analysis may differ from the Project's traffic impact analysis, to maintain analytic consistency and establish the maximum impact scenario noted above, the following approach has been utilized in calculating emissions associated with vehicles accessing the Project. This approach is consistent with professional industry practice (32) (33) (34).

For passenger car trips, the Los Angeles County CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the South Coast Air Basin (SCAB) as follows. It is appropriate to stop the VMT calculation at the boundary of the SCAB because any activity

beyond that boundary would be speculative, this approach is also consistent with professional industry practice.

- Project site to the Port of Los Angeles/Long Beach: 35.9 miles;
- Project site to Banning Pass: 76.2 miles;
- Project site to San Diego County line: 60 miles;
- Project site to Cajon Pass: 47.7 miles;
- Project site to downtown Los Angeles: 20.4 miles.

Assuming that 50% of all delivery trips will travel to and from the Project from the Port of Los Angeles/Long Beach, with the remainder as distribution trips to all other locations, the average truck trip length is calculated as 46 miles.

Two separate model runs were utilized in order to more accurately model emissions resulting from vehicle operations. The first run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars within Los Angeles County and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second run analyzed truck emissions, which incorporated an average truck trip length of 46 miles and a fleet mix obtained from the Project's traffic study as previously described in Section 3.5.3. The estimated emissions resulting from vehicle operations are summarized in Section 3.5.4. Detailed emission calculations are provided in Appendix 3.1.

Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of tire wear particulates. The emissions estimates for travel on paved roads were calculated using the CalEEMod model.

3.5.4 Operational Emissions Summary

Operational-source emissions are summarized on Table 3-6. Project operational-source emissions would not exceed applicable SCAQMD regional thresholds of significance. Therefore, a less than significant impact would occur and no mitigation is required.

TABLE 3-6: SUMMARY OF PEAK OPERATIONAL EMISSIONS (1 OF 2)

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	9.77	6.40E-04	2.50E-04	1.00E-05	2.50E+00	2.50E-04
Energy Source	0.07	0.61	0.51	3.64E-03	0.05	0.05
Mobile (Trucks)	2.26	30.85	23.48	0.12	4.57	1.55
Mobile (Passenger Cars)	1.02	1.38	18.84	0.07	5.92	1.59
Total Maximum Daily Emissions	**13.12**	**32.84**	**42.83**	**0.19**	**13.04**	**3.19**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

TABLE 3-6: SUMMARY OF PEAK OPERATIONAL EMISSIONS (2 OF 2)

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	9.77	6.40E-04	0.07	1.00E-05	2.50E-04	2.50E-04
Energy Source	0.07	0.61	0.51	3.64E-03	0.05	0.05
Mobile (Trucks)	2.30	32.14	24.91	0.12	4.57	1.55
Mobile (Passenger Cars)	1.03	1.53	17.34	0.06	5.92	1.59
Total Maximum Daily Emissions	**13.17**	**34.28**	**42.83**	**0.18**	**10.54**	**3.19**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

3.6 LOCALIZED SIGNIFICANCE - CONSTRUCTION ACTIVITY

BACKGROUND ON LOCALIZED SIGNIFICANCE THRESHOLD (LST) DEVELOPMENT

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (Methodology) (35). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM10 and PM2.5; both of which are non-attainment pollutants.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology) (36).

APPLICABILITY OF LSTS FOR THE PROJECT

For this Project, the appropriate Source Receptor Area (SRA) for the LST is the South San Gabriel Valley monitoring station (SRA 11). LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO2), particulate matter ≤ 10 microns (PM10), and particulate matter ≤ 2.5 microns (PM2.5). The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size.

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- CalEEMod is utilized to determine the maximum daily on-site emissions that will occur during construction activity.
- The SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (37) is used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.
- If the total acreage disturbed is less than or equal to five acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact. The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.
- For projects that exceed 5 acres, the 5-acre LST look-up values can be used as a screening tool to determine which pollutants require detailed analysis.[4] This approach is conservative as it assumes that all on-site emissions would occur within a 5-acre area and would over predict potential localized impacts (i.e., more pollutant emissions occurring within a smaller area and within closer proximity to potential sensitive receptors). If the project exceeds the LST look-up values, then the SCAQMD recommends that project specific air quality modeling be performed.

EMISSIONS CONSIDERED

SCAQMD's Methodology clearly states that "off-site mobile emissions from the Project should NOT be included in the emissions compared to LSTs (38)." Therefore, for purposes of the construction LST analysis only emissions included in the CalEEMod "on-site" emissions outputs were considered.

MAXIMUM DAILY DISTURBED-ACREAGE

Table 3-7 is used to determine the maximum daily disturbed-acreage for purposes of modeling localized emissions. Based on Table 3-7, the proposed Project could actively disturb approximately 3.5 acres per day during site preparation and 5 acres per day during the grading phase of construction.

4 Personal communication with Mr. Ian MacMillan, November 17, 2011

TABLE 3-7: MAXIMUM DAILY DISTURBED-ACREAGE

Construction Phase	Equipment Type	Equipment Quantity	Acres graded per 8 hour day	Operating Hours per Day	Acres graded per day
Site Preparation	Rubber Tired Dozers	3	0.5	8	1.5
	Crawler Tractors	4	0.5	8	2
	Graders	0	0.5	8	0
	Scrapers	0	1	8	0
Total acres graded per day during Site Preparation					3.5

Construction Phase	Equipment Type	Equipment Quantity	Acres graded per 8 hour day	Operating Hours per Day	Acres graded per day
Grading	Rubber Tired Dozers	1	0.5	8	0.5
	Crawler Tractors	2	0.5	8	1
	Graders	1	0.5	8	0.5
	Scrapers	3	1	8	3
Total acres graded per day during Grading					5

Receptors

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, individuals with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as "sensitive receptors"; they are also known to be locations where an individual can remain for 24 hours.

The nearest sensitive receptors are the William Workman High School and the single-family residential communities located adjacent south and east of the Project site, respectively. Notwithstanding, the *Methodology* explicitly states that "*It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters* (39)." Therefore, LSTs for receptors located at 25 meters were utilized in this AQIA.

CONSTRUCTION-SOURCE EMISSIONS LST ANALYSIS

Impacts Without Mitigation

Table 3-8 identifies the localized impacts at the nearest receptor location in the vicinity of the Project. Emissions during the site preparation phase and grading phase of construction activity would not exceed the applicable thresholds for any criteria pollutant.

TABLE 3-8: LOCALIZED SIGNIFICANCE SUMMARY CONSTRUCTION (WITHOUT MITIGATION)

On-Site Site Preparation Emissions	Emissions (pounds per day)			
	NOx	CO	PM10	PM2.5
Maximum Daily Emissions	75.82	40.78	10.27	6.84
SCAQMD Localized Threshold	152	1,423	11	7
Threshold Exceeded?	NO	NO	NO	NO

On-Site Grading Emissions	Emissions (pounds per day)			
	NOx	CO	PM10	PM2.5
Maximum Daily Emissions	87.77	91.12	11.8	6.64
SCAQMD Localized Threshold	183	1,814	14	9
Threshold Exceeded?	NO	NO	NO	NO

Impacts With Mitigation

Table 3-9 identifies the localized impacts at the nearest receptor location in the vicinity of the Project. Emissions during the site preparation phase and grading phase of construction activity would not exceed the applicable thresholds for any criteria pollutant. Implementation of MM AQ-1 would further reduce emissions to less than significant levels. Therefore, a less than significant impact would occur with and without implementation of MM AQ-1.

TABLE 3-9: LOCALIZED SIGNIFICANCE SUMMARY CONSTRUCTION (WITH MITIGATION)

On-Site Site Preparation Emissions	Emissions (pounds per day)			
	NOx	CO	PM10	PM2.5
Maximum Daily Emissions	27.16	30.44	8.08	4.9
SCAQMD Localized Threshold	152	1,423	11	7
Threshold Exceeded?	NO	NO	NO	NO

On-Site Grading Emissions	Emissions (pounds per day)			
	NOx	CO	PM10	PM2.5
Maximum Daily Emissions	87.77	91.12	11.8	6.64
SCAQMD Localized Threshold	183	1,814	14	9
Threshold Exceeded?	NO	NO	NO	NO

3.7 LOCALIZED SIGNIFICANCE – LONG-TERM OPERATIONAL ACTIVITY

Table 3-10 shows the calculated emissions for the Project's operational activities compared with the applicable LSTs. The LST analysis includes on-site sources only; however, the CalEEMod™ model outputs do not separate on-site and off-site emissions from mobile sources. In an effort to establish a maximum potential impact scenario for analytic purposes, the

emissions shown on Table 3-10 represent all on-site Project-related stationary (area) sources and five percent (5%) of the Project-related mobile sources. Considering that the weighted trip length used in CalEEMod™ for the Project is approximately 16.6 miles for passenger cars and 46 miles for trucks, 5% of this total would represent an on-site travel distance of approximately 0.83 mile/ 4,382 feet for each passenger car and approximately 2.3 miles/ 12,144 feet for each truck. Thus the 5% assumption is conservative and would tend to overstate the actual impact. Modeling based on these assumptions demonstrates that even within broad encompassing parameters, Project operational-source emissions would not exceed applicable LSTs.

As noted previously, the nearest sensitive receptor land uses (where an individual could remain for 24 hours) are located approximately 25 miles south and east of the Project site. Accordingly, LSTs for receptors at 25 meters are utilized in this analysis and provide for a conservative i.e. "health protective" standard of care.

LOCALIZED THRESHOLDS FOR OPERATIONAL ACTIVITY

Applicable localized thresholds from the SCAQMD's mass-rate LST lookup tables for a five-acre project site are as follows:

- NOx: 183 pounds per day;
- PM_{10}: 4 pounds per day;
- $PM_{2.5}$: 2 pounds per day; or
- CO: 1,814 pounds per day.

If emissions exceed the applicable LSTs for the Project site, then additional dispersion modeling needs to be conducted to determine if there is an actual exceedance of the AAQS.

TABLE 3-10: LOCALIZED SIGNIFICANCE OPERATIONS SUMMARY

Peak Operational Emissions	Emissions (pounds per day)			
	NOx	CO	PM10	PM2.5
Maximum Daily Emissions	2.29	2.69	0.57	0.21
SCAQMD Localized Threshold	183	1,814	4	2
Threshold Exceeded?	NO	NO	NO	NO

As shown on Table 3-10, operational emissions will not exceed the LST thresholds for the nearest sensitive receptor. Therefore, the Project will have a less than significant localized impact during operational activity.

3.8 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific carbon monoxide (CO) "hot spots" is not needed to reach this conclusion.

An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the SCAB was designated nonattainment under the California AAQS and National AAQS for CO (40).

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment, as previously noted in Table 2-2. Also, CO concentrations in the Project vicinity have steadily declined, as indicated by historical emissions data presented previously at Table 2-3.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown on Table 3-11.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 9.3 ppm 8-hr CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 8.6 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (40). In contrast, the ambient 8-hr CO concentration within the Project study area is estimated at 1.4 ppm—1.6 ppm (please refer to previous Table 2-3). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (41).

Traffic volumes generating the CO concentrations for the "hot spot" analysis, shown on Table 3-12. The busiest intersection evaluated was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4=

18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).[5] At buildout of the Project, the highest Hurley St., which is lower than the highest daily traffic volumes generated at the busiest intersection in the CO "hot spot" analysis (42).

The proposed Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study, or based on representative BAAQMD CO threshold considerations, as shown on Table 3-13. Therefore, CO "hot spots" are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-11: CO MODEL RESULTS

Intersection Location	Carbon Monoxide Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire-Veteran	4.6	3.5	4.2
Sunset-Highland	4	4.5	3.9
La Cienega-Century	3.7	3.1	5.8
Long Beach-Imperial	3	3.1	9.3

TABLE 3-12: TRAFFIC VOLUMES FOR INTERSECTIONS EVALUATED IN AQMP

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire-Veteran	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset-Highland	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega-Century	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach-Imperial	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

TABLE 3-13: PROJECT PEAK HOUR TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
Hacienda Bl & Amar Rd.	1,132/1,538	359/1,266	554/859	1,622/1,113	3,667/4,776
Hacienda Bl & Valley Bl.	2,014/2,104	1,575/1,480	1,972/2,054	1,008/1,511	6,569/7,149
Azusa Av. & Hurley St.	1,564/2,820	2,239/1,279	522/528	494/525	4,819/5,152
Azusa Av. & Amar Rd.	1,135/1,905	1,802/1,470	1,228/1,412	1,882/1,533	6,047/6,320

Source: Echelon Avenue Commerce Park Traffic Impact Analysis (Urban Crossroads, Inc., 2016).

5 Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

3.9 AIR QUALITY MANAGEMENT PLANNING

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the Basin. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

The Final 2012 AQMP was adopted by the AQMD Governing Board on December 7, 2012 (10). The 2012 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories.

Similar to the 2007 AQMP, the 2012 AQMP was based on assumptions provided by both CARB and SCAG in the latest available EMFAC model for the most recent motor vehicle and demographics information, respectively. The air quality levels projected in the 2012 AQMP are based on several assumptions. For example, the 2012 AQMP has assumed that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its 2012 RTP. The 2012 AQMP also has assumed that such development projects will implement strategies to reduce emissions generated during the construction and operational phases of development. The Project's consistency with the 2012 AQMP is discussed as follows:

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993) (16). These indicators are discussed below:

- Consistency Criterion No. 1: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Construction Impacts

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized significance thresholds (LSTs) were exceeded. As evaluated as part of the Project LST analysis (previously presented), the Project's localized

construction-source emissions after mitigation would not exceed applicable LSTs, and a less than significant impact is expected.

Operational Impacts

The Project regional analysis demonstrates that Project operational-source emissions would not exceed applicable localized or regional significance thresholds, and would therefore not result in or cause violations of the CAAQS and NAAQS.

On the basis of the preceding discussion, the Project is consistent with the first criterion.

- Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

Overview

The 2012 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City of Industry General Plan (referred to as "General Plan") is considered to be consistent with the AQMP.

Construction Impacts

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities.

Operational Impacts

The General Plan designates the Project site under "Employment" (43). Employment land uses allow for "a variety of business and employment uses including industrial manufacturing, assembly, printing, machining, milling, welding, research and development, distribution, warehouse, storage, and supporting office uses." The Project site has a current zoning designation of "Industrial (I)", which allows for manufacturing, agricultural, and warehouse uses (44) (45)."

The Project applicant proposes to construct 7 business park buildings, which is permitted under the General Plan land use and zoning designations. The Project would not increase the growth intensities stated in the current General Plan land use and zoning and would, therefore, be consistent with the AQMP. It should also be noted that the proposed development would not exceed regional or local daily emissions thresholds and would thus have a less than significant impact.

AQMP Consistency Conclusion

The Project would not result in or cause NAAQS or CAAQS violations. The Project would be consistent with land use and development reflected in the General Plan. Also, the Project would not exceed the applicable SCAQMD regional or daily emissions thresholds. The Project is therefore considered to be consistent with the AQMP.

3.10 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors.

Results of the LST analysis indicate that the Project would not exceed the SCAQMD localized significance thresholds during construction (after mitigation). Therefore sensitive receptors would not be subject to a significant air quality impact during Project construction.

Results of the LST analysis indicate that the Project would not exceed the SCAQMD localized significance thresholds during operational activity. The proposed Project would not result in a CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8. Thus a less than significant impact to sensitive receptors during operational activity is expected.

3.11 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be

temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

3.12 CUMULATIVE IMPACTS

The Project area is designated as an extreme non-attainment area for ozone, and a non-attainment area for PM_{10} and $PM_{2.5}$.

CRITERION 1; REGIONAL ANALYSIS

Construction Impacts

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that prior to application of appropriate mitigation measures, Project construction-source air pollutant emissions would result in exceedances of regional thresholds of NO_x. After implementation of appropriate mitigation measures, project construction-source emission would not exceed the regional thresholds for any criteria pollutant. Therefore, Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

Operational Impacts

Project operational-source NOx emissions would not exceed applicable SCAQMD regional thresholds. Therefore, Project operational-source emissions would be considered less than significant on a project-specific and cumulative basis.

CRITERION 2; LIST APPROACH

A list approach is used, in accordance with Section 15130(b) of the CEQA Guidelines, which states the following:

> *The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.*

The SCAQMD has recognized that there is typically insufficient information to quantitatively evaluate the cumulative contributions of multiple projects because each project applicant has no control over nearby projects. Nevertheless, the potential cumulative impacts from the

Project and other projects are discussed below. A cumulative project list was developed for this analysis and is shown in Table 3-14.

Related projects could contribute to an existing or projected air quality exceedance because the Basin is currently nonattainment for ozone, PM10, and PM2.5. With regard to determining the significance of the contribution from the Project, the SCAQMD recommends that any given project's potential contribution to cumulative impacts should be assessed using the same significance criteria as for project-specific impacts. Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a commutatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. As previously noted, after implementation of MM AQ-1, the Project will not exceed the applicable SCAQMD regional threshold for construction-source activity. The Project would not exceed the applicable regional thresholds for operational-source emissions. As such, the Project will not result in a cumulatively significant impact for construction or operational activity.

TABLE 3-14: CUMULATIVE DEVELOPMENT LIST

ID	Location	Land Use	Quantity	Units[1]
1	15000 Nelson	General Light Industrial	125.344	TSF
2	489 & 499 Parriott Pl.	General Light Industrial	130.170	TSF
3	SEC Azusa and Chestnut	Industrial Park	614.597	TSF
4	18421 Railroad Av.	General Light Industrial	8.850	TSF
5	12851 Crossroads Pwy. S.	General Office	77.250	TSF
6	3718 Capitol Av.	Warehouse	36.666	TSF
7	14700 Nelson	General Light Industrial	232.450	TSF
8	19782 Walnut Dr. N.	Fast-food w/ Drive-thru	2.662	TSF
9	1552 Azusa Av.	Retail	5.160	TSF
10	17225 Arenth Av.[2]	Maintenance	6.760	TSF
11	Castleton	Fast-food w/ Drive-thru	2.492	TSF
12	16801 Gale Av.	Warehouse	39.150	TSF
13	NEC Hacienda and Francisquito	Shopping Center	18.000	TSF
14	301 S. Glendora Av.	Retail	20.000	TSF
		Apartments	450	DU
15	424 S. Lark Ellen Av.	Single Family Residential	45	DU
16	4101 & 4111 S. Nogales St.	Retail	5.160	TSF
		Condo/Townhomes	33	DU
17	4141 Nogales St.	Medical Office/Retail	23.588	TSF
18	1030 S. Glendora Av.	Retail	2.200	TSF
19	3228, 3238, 3244 Holt Av.	Condo/Townhomes	48	DU
20	520 S. Lark Ellen Av.	Single Family Residential	45	DU
21	1773 W. San Bernardino Rd.	Condo/Townhomes	30	DU

4 FINDINGS & CONCLUSIONS

4.1 CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project will exceed the numerical thresholds of significance established by the SCAQMD for emissions of NOx only prior to implementation of applicable MMs.

The proposed mitigation measure MM AQ-1 is recommended to reduce the impacts to less than significant levels. After implementation of MM AQ-1, construction activity emissions will not exceed the numerical thresholds established by the SCAQMD for any phase of construction activity. Thus a less than significant impact will occur with the implementation of MM AQ-1. This finding does not conflict with the significant and unavoidable impact finding with respect to air quality from construction activity that was made in the City of Industry General Plan Update EIR. The overall air quality impacts of the proposed Project would be less than what was disclosed in the General Plan Update EIR.

LOCALIZED IMPACTS

Without MMs, emissions during construction activity would not exceed the SCAQMD's localized significance threshold for any criteria pollutant. After implementation of MM AQ-1, the emissions resulting from short-term construction activity will be further reduced. A less than significant impact would occur without or with implementation of applicable mitigation.

Project construction-source emissions would not conflict with the applicable AQMP.

4.2 OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would not exceed the regional thresholds of significance established by the SCAQMD for any criteria pollutant. Thus a less than significant impact would occur for Project-related operational-source emissions and no mitigation is required. This finding does not conflict with the significant and unavoidable impact finding with respect to air quality from operational activity that was made in the City of Industry General Plan Update EIR. The overall air quality impacts of the proposed Project would be less than what was disclosed in the General Plan Update EIR.

LOCALIZED IMPACTS

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would not result in a significant CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8, thus a less than significant impact to sensitive receptors during

operational activity is expected. Lastly, Project operational-source emissions would not conflict with the applicable AQMP.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy business park uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (1). Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

5 REFERENCES

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6 CERTIFICATION

The contents of this AQIA represent an accurate depiction of the environmental impacts associated with the proposed Echelon Avenue Commerce Park Project. The information contained in this AQIA is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June, 2013
Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

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Echelon Construction- Unmitigated

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Based on a early 2018 opening year

Off-road Equipment - Equipment doubled due to shortened construction duration

Off-road Equipment -

Off-road Equipment - Based on a 8 hour workday

Grading -

Demolition -

Architectural Coating - Based on Rule 1113- all flat, nonflat, and default coatings shall be no more than 50 g/L VOC content

Vehicle Trips - Construction only

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation -

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Off-road Equipment - Tractor=crawler tractors

Off-road Equipment - Tractor=crawler tractor; based on a maximum 5 acre disturbance area

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	20.00	25.00

tblConstructionPhase	NumDays	300.00	150.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	50.00
tblConsumerProducts	ROG_EF	1.98E-05	1E-10
tblEnergyUse	LightingElect	4.29	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	5.62	0.00
tblEnergyUse	T24NG	10.54	0.00
tblGrading	AcresOfGrading	225.00	125.00
tblGrading	AcresOfGrading	20.00	0.00
tblGrading	MaterialImported	0.00	30,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	305.50	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	20.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	WD_TR	6.96	0.00
tblWater	IndoorWaterUseRate	56,973,062.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	47.1835	117.4055	73.2636	0.1447	18.2675	4.4943	21.4913	9.9840	4.1347	12.9500	0.0000	14,567.1871	14,567.1871	2.7426	0.0000	14,624.7814
2018	47.1246	2.8354	4.4711	9.0500e-003	0.3912	0.2042	0.5954	0.1038	0.2039	0.3077	0.0000	774.1723	774.1723	0.0558	0.0000	775.3432
Total	**94.3081**	**120.2409**	**77.7348**	**0.1537**	**18.6587**	**4.6985**	**22.0867**	**10.0878**	**4.3386**	**13.2577**	**0.0000**	**15,341.3593**	**15,341.3593**	**2.7984**	**0.0000**	**15,400.1246**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	47.1835	117.4055	73.2636	0.1447	7.2470	4.4943	10.4709	3.9263	4.1347	6.8923	0.0000	14,567.1871	14,567.1871	2.7426	0.0000	14,624.7814
2018	47.1246	2.8354	4.4711	9.0500e-003	0.3912	0.2042	0.5954	0.1038	0.2039	0.3077	0.0000	774.1723	774.1723	0.0558	0.0000	775.3432
Total	**94.3081**	**120.2409**	**77.7348**	**0.1537**	**7.6383**	**4.6985**	**11.0663**	**4.0301**	**4.3386**	**7.1999**	**0.0000**	**15,341.3593**	**15,341.3593**	**2.7984**	**0.0000**	**15,400.1246**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.06**	**0.00**	**49.90**	**60.05**	**0.00**	**45.69**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5800e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**6.5800e-003**	**6.4000e-004**	**0.0685**	**1.0000e-005**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**	**0.0000**	**0.1531**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5800e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**6.5800e-003**	**6.4000e-004**	**0.0685**	**1.0000e-005**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**	**0.0000**	**0.1531**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/13/2017	5	10	
2	Site Preparation	Site Preparation	1/14/2017	1/27/2017	5	10	
3	Grading	Grading	1/28/2017	4/7/2017	5	50	
4	Building Construction	Building Construction	4/8/2017	11/3/2017	5	150	
5	Paving	Paving	11/4/2017	12/1/2017	5	20	
6	Architectural Coating	Architectural Coating	12/2/2017	1/5/2018	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 125

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 377,025; Non-Residential Outdoor: 125,675 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	162	0.38
Building Construction	Cranes	2	8.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Grading	Scrapers	3	8.00	361	0.48
Building Construction	Welders	2	8.00	46	0.45
Site Preparation	Crawler Tractors	4	8.00	208	0.43
Grading	Crawler Tractors	2	8.00	208	0.43

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	20.00	0.00	3,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	173.00	68.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2756	0.0000	0.2756	0.0417	0.0000	0.0417			0.0000			0.0000
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**	**0.2756**	**2.1252**	**2.4008**	**0.0417**	**1.9797**	**2.0215**		**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0217	0.3347	0.2478	9.7000e-004	0.0226	4.9300e-003	0.0276	6.2000e-003	4.5300e-003	0.0107		96.2601	96.2601	7.1000e-004		96.2750
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		177.4541	177.4541	9.2800e-003		177.6489
Total	**0.0817**	**0.4108**	**1.1906**	**3.1500e-003**	**0.1903**	**6.4500e-003**	**0.1968**	**0.0507**	**5.9300e-003**	**0.0566**		**273.7143**	**273.7143**	**9.9900e-003**		**273.9239**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1075	0.0000	0.1075	0.0163	0.0000	0.0163			0.0000			0.0000
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**	**0.1075**	**2.1252**	**2.2327**	**0.0163**	**1.9797**	**1.9960**	**0.0000**	**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0217	0.3347	0.2478	9.7000e-004	0.0226	4.9300e-003	0.0276	6.2000e-003	4.5300e-003	0.0107		96.2601	96.2601	7.1000e-004		96.2750
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		177.4541	177.4541	9.2800e-003		177.6489
Total	**0.0817**	**0.4108**	**1.1906**	**3.1500e-003**	**0.1903**	**6.4500e-003**	**0.1968**	**0.0507**	**5.9300e-003**	**0.0566**		**273.7143**	**273.7143**	**9.9900e-003**		**273.9239**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	6.2736	75.8191	40.7814	0.0574		3.2220	3.2220		2.9643	2.9643		5,875.0677	5,875.0677	1.8001		5,912.8700
Total	**6.2736**	**75.8191**	**40.7814**	**0.0574**	**18.0663**	**3.2220**	**21.2883**	**9.9307**	**2.9643**	**12.8950**		**5,875.0677**	**5,875.0677**	**1.8001**		**5,912.8700**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	6.2736	75.8191	40.7814	0.0574		3.2220	3.2220		2.9643	2.9643	0.0000	5,875.0676	5,875.0676	1.8001		5,912.8700
Total	**6.2736**	**75.8191**	**40.7814**	**0.0574**	**7.0458**	**3.2220**	**10.2679**	**3.8730**	**2.9643**	**6.8372**	**0.0000**	**5,875.0676**	**5,875.0676**	**1.8001**		**5,912.8700**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7412	0.0000	8.7412	3.6068	0.0000	3.6068			0.0000			0.0000
Off-Road	8.1197	97.9938	57.7109	0.0858		4.2079	4.2079		3.8712	3.8712		8,777.1134	8,777.1134	2.6893		8,833.5885
Total	**8.1197**	**97.9938**	**57.7109**	**0.0858**	**8.7412**	**4.2079**	**12.9491**	**3.6068**	**3.8712**	**7.4780**		**8,777.1134**	**8,777.1134**	**2.6893**		**8,833.5885**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2492	19.3103	14.2957	0.0560	1.3063	0.2844	1.5907	0.3577	0.2616	0.6193		5,553.4682	5,553.4682	0.0409		5,554.3277
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0801	0.1014	1.2570	2.9100e-003	0.2236	2.0300e-003	0.2256	0.0593	1.8700e-003	0.0612		236.6055	236.6055	0.0124		236.8652
Total	**1.3292**	**19.4117**	**15.5528**	**0.0589**	**1.5299**	**0.2864**	**1.8163**	**0.4170**	**0.2635**	**0.6805**		**5,790.0737**	**5,790.0737**	**0.0533**		**5,791.1929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4091	0.0000	3.4091	1.4066	0.0000	1.4066			0.0000			0.0000
Off-Road	8.1197	97.9938	57.7109	0.0858		4.2079	4.2079		3.8712	3.8712	0.0000	8,777.1134	8,777.1134	2.6893		8,833.5885
Total	**8.1197**	**97.9938**	**57.7109**	**0.0858**	**3.4091**	**4.2079**	**7.6169**	**1.4066**	**3.8712**	**5.2779**	**0.0000**	**8,777.1134**	**8,777.1134**	**2.6893**		**8,833.5885**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2492	19.3103	14.2957	0.0560	1.3063	0.2844	1.5907	0.3577	0.2616	0.6193		5,553.4682	5,553.4682	0.0409		5,554.3277
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0801	0.1014	1.2570	2.9100e-003	0.2236	2.0300e-003	0.2256	0.0593	1.8700e-003	0.0612		236.6055	236.6055	0.0124		236.8652
Total	**1.3292**	**19.4117**	**15.5528**	**0.0589**	**1.5299**	**0.2864**	**1.8163**	**0.4170**	**0.2635**	**0.6805**		**5,790.0737**	**5,790.0737**	**0.0533**		**5,791.1929**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.6043	57.0175	38.7427	0.0574		3.8199	3.8199		3.5828	3.5828		5,662.6189	5,662.6189	1.4168		5,692.3707
Total	**6.6043**	**57.0175**	**38.7427**	**0.0574**		**3.8199**	**3.8199**		**3.5828**	**3.5828**		**5,662.6189**	**5,662.6189**	**1.4168**		**5,692.3707**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5239	5.4247	6.4908	0.0149	0.4243	0.0829	0.5071	0.1207	0.0762	0.1970		1,473.5867	1,473.5867	0.0106		1,473.8101
Worker	0.6924	0.8771	10.8733	0.0251	1.9337	0.0175	1.9513	0.5128	0.0162	0.5290		2,046.6376	2,046.6376	0.1070		2,048.8841
Total	**1.2163**	**6.3018**	**17.3642**	**0.0401**	**2.3580**	**0.1004**	**2.4584**	**0.6336**	**0.0924**	**0.7259**		**3,520.2244**	**3,520.2244**	**0.1176**		**3,522.6942**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.6043	57.0175	38.7427	0.0574		3.8199	3.8199		3.5828	3.5828	0.0000	5,662.6188	5,662.6188	1.4168		5,692.3707
Total	**6.6043**	**57.0175**	**38.7427**	**0.0574**		**3.8199**	**3.8199**		**3.5828**	**3.5828**	**0.0000**	**5,662.6188**	**5,662.6188**	**1.4168**		**5,692.3707**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5239	5.4247	6.4908	0.0149	0.4243	0.0829	0.5071	0.1207	0.0762	0.1970		1,473.5867	1,473.5867	0.0106		1,473.8101
Worker	0.6924	0.8771	10.8733	0.0251	1.9337	0.0175	1.9513	0.5128	0.0162	0.5290		2,046.6376	2,046.6376	0.1070		2,048.8841
Total	**1.2163**	**6.3018**	**17.3642**	**0.0401**	**2.3580**	**0.1004**	**2.4584**	**0.6336**	**0.0924**	**0.7259**		**3,520.2244**	**3,520.2244**	**0.1176**		**3,522.6942**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3960**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		177.4541	177.4541	9.2800e-003		177.6489
Total	**0.0600**	**0.0761**	**0.9428**	**2.1800e-003**	**0.1677**	**1.5200e-003**	**0.1692**	**0.0445**	**1.4000e-003**	**0.0459**		**177.4541**	**177.4541**	**9.2800e-003**		**177.6489**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3960**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		177.4541	177.4541	9.2800e-003		177.6489
Total	**0.0600**	**0.0761**	**0.9428**	**2.1800e-003**	**0.1677**	**1.5200e-003**	**0.1692**	**0.0445**	**1.4000e-003**	**0.0459**		**177.4541**	**177.4541**	**9.2800e-003**		**177.6489**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311		375.2641	375.2641	0.0396		376.0961
Total	**47.0434**	**2.9134**	**2.4908**	**3.9600e-003**		**0.2311**	**0.2311**		**0.2311**	**0.2311**		**375.2641**	**375.2641**	**0.0396**		**376.0961**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1401	0.1774	2.1998	5.0900e-003	0.3912	3.5400e-003	0.3948	0.1038	3.2700e-003	0.1070		414.0596	414.0596	0.0216		414.5141
Total	**0.1401**	**0.1774**	**2.1998**	**5.0900e-003**	**0.3912**	**3.5400e-003**	**0.3948**	**0.1038**	**3.2700e-003**	**0.1070**		**414.0596**	**414.0596**	**0.0216**		**414.5141**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311	0.0000	375.2641	375.2641	0.0396		376.0961
Total	**47.0434**	**2.9134**	**2.4908**	**3.9600e-003**		**0.2311**	**0.2311**		**0.2311**	**0.2311**	**0.0000**	**375.2641**	**375.2641**	**0.0396**		**376.0961**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1401	0.1774	2.1998	5.0900e-003	0.3912	3.5400e-003	0.3948	0.1038	3.2700e-003	0.1070		414.0596	414.0596	0.0216		414.5141
Total	**0.1401**	**0.1774**	**2.1998**	**5.0900e-003**	**0.3912**	**3.5400e-003**	**0.3948**	**0.1038**	**3.2700e-003**	**0.1070**		**414.0596**	**414.0596**	**0.0216**		**414.5141**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
Total	**46.9985**	**2.6743**	**2.4723**	**3.9600e-003**		**0.2007**	**0.2007**		**0.2007**	**0.2007**		**375.2647**	**375.2647**	**0.0357**		**376.0135**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1261	0.1611	1.9989	5.0900e-003	0.3912	3.4300e-003	0.3947	0.1038	3.1800e-003	0.1069		398.9075	398.9075	0.0201		399.3297
Total	**0.1261**	**0.1611**	**1.9989**	**5.0900e-003**	**0.3912**	**3.4300e-003**	**0.3947**	**0.1038**	**3.1800e-003**	**0.1069**		**398.9075**	**398.9075**	**0.0201**		**399.3297**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
Total	**46.9985**	**2.6743**	**2.4723**	**3.9600e-003**		**0.2007**	**0.2007**		**0.2007**	**0.2007**	**0.0000**	**375.2647**	**375.2647**	**0.0357**		**376.0135**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1261	0.1611	1.9989	5.0900e-003	0.3912	3.4300e-003	0.3947	0.1038	3.1800e-003	0.1069		398.9075	398.9075	0.0201		399.3297
Total	**0.1261**	**0.1611**	**1.9989**	**5.0900e-003**	**0.3912**	**3.4300e-003**	**0.3947**	**0.1038**	**3.1800e-003**	**0.1069**		**398.9075**	**398.9075**	**0.0201**		**399.3297**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.5800e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Unmitigated	6.5800e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**6.5800e-003**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**6.5800e-003**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Echelon Construction- Unmitigated

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Based on a early 2018 opening year

Off-road Equipment - Equipment doubled due to shortened construction duration

Off-road Equipment -

Off-road Equipment - Based on a 8 hour workday

Grading -

Demolition -

Architectural Coating - Based on Rule 1113- all flat, nonflat, and default coatings shall be no more than 50 g/L VOC content

Vehicle Trips - Construction only

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation -

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Off-road Equipment - Tractor=crawler tractors

Off-road Equipment - Tractor=crawler tractor; based on a maximum 5 acre disturbance area

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	20.00	25.00

tblConstructionPhase	NumDays	300.00	150.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	50.00
tblConsumerProducts	ROG_EF	1.98E-05	1E-10
tblEnergyUse	LightingElect	4.29	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	5.62	0.00
tblEnergyUse	T24NG	10.54	0.00
tblGrading	AcresOfGrading	225.00	125.00
tblGrading	AcresOfGrading	20.00	0.00
tblGrading	MaterialImported	0.00	30,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	305.50	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	20.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	WD_TR	6.96	0.00
tblWater	IndoorWaterUseRate	56,973,062.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	47.1888	118.0946	75.5702	0.1444	18.2675	4.4949	21.4913	9.9840	4.1353	12.9500	0.0000	14,540.8426	14,540.8426	2.7431	0.0000	14,598.4483
2018	47.1291	2.8529	4.3334	8.7600e-003	0.3912	0.2042	0.5954	0.1038	0.2039	0.3077	0.0000	751.7218	751.7218	0.0558	0.0000	752.8928
Total	**94.3179**	**120.9475**	**79.9036**	**0.1532**	**18.6587**	**4.6991**	**22.0867**	**10.0878**	**4.3392**	**13.2577**	**0.0000**	**15,292.5644**	**15,292.5644**	**2.7989**	**0.0000**	**15,351.3410**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	47.1888	118.0946	75.5702	0.1444	7.2470	4.4949	10.4709	3.9263	4.1353	6.8923	0.0000	14,540.8426	14,540.8426	2.7431	0.0000	14,598.4482
2018	47.1291	2.8529	4.3334	8.7600e-003	0.3912	0.2042	0.5954	0.1038	0.2039	0.3077	0.0000	751.7218	751.7218	0.0558	0.0000	752.8928
Total	**94.3179**	**120.9475**	**79.9036**	**0.1532**	**7.6383**	**4.6991**	**11.0663**	**4.0301**	**4.3392**	**7.1999**	**0.0000**	**15,292.5644**	**15,292.5644**	**2.7989**	**0.0000**	**15,351.3410**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.06**	**0.00**	**49.90**	**60.05**	**0.00**	**45.69**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5800e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**6.5800e-003**	**6.4000e-004**	**0.0685**	**1.0000e-005**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**	**0.0000**	**0.1531**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5800e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**6.5800e-003**	**6.4000e-004**	**0.0685**	**1.0000e-005**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**	**0.0000**	**0.1531**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/13/2017	5	10	
2	Site Preparation	Site Preparation	1/14/2017	1/27/2017	5	10	
3	Grading	Grading	1/28/2017	4/7/2017	5	50	
4	Building Construction	Building Construction	4/8/2017	11/3/2017	5	150	
5	Paving	Paving	11/4/2017	12/1/2017	5	20	
6	Architectural Coating	Architectural Coating	12/2/2017	1/5/2018	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 125

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 377,025; Non-Residential Outdoor: 125,675 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	162	0.38
Building Construction	Cranes	2	8.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Grading	Scrapers	3	8.00	361	0.48
Building Construction	Welders	2	8.00	46	0.45
Site Preparation	Crawler Tractors	4	8.00	208	0.43
Grading	Crawler Tractors	2	8.00	208	0.43

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	20.00	0.00	3,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	173.00	68.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2756	0.0000	0.2756	0.0417	0.0000	0.0417			0.0000			0.0000
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**	**0.2756**	**2.1252**	**2.4008**	**0.0417**	**1.9797**	**2.0215**		**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0228	0.3465	0.2892	9.7000e-004	0.0226	4.9400e-003	0.0276	6.2000e-003	4.5400e-003	0.0107		96.0340	96.0340	7.2000e-004		96.0491
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0843	0.8817	2.0600e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		167.4803	167.4803	9.2800e-003		167.6751
Total	**0.0851**	**0.4308**	**1.1708**	**3.0300e-003**	**0.1903**	**6.4600e-003**	**0.1968**	**0.0507**	**5.9400e-003**	**0.0566**		**263.5143**	**263.5143**	**0.0100**		**263.7242**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1075	0.0000	0.1075	0.0163	0.0000	0.0163			0.0000			0.0000
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**	**0.1075**	**2.1252**	**2.2327**	**0.0163**	**1.9797**	**1.9960**	**0.0000**	**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0228	0.3465	0.2892	9.7000e-004	0.0226	4.9400e-003	0.0276	6.2000e-003	4.5400e-003	0.0107		96.0340	96.0340	7.2000e-004		96.0491
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0843	0.8817	2.0600e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		167.4803	167.4803	9.2800e-003		167.6751
Total	**0.0851**	**0.4308**	**1.1708**	**3.0300e-003**	**0.1903**	**6.4600e-003**	**0.1968**	**0.0507**	**5.9400e-003**	**0.0566**		**263.5143**	**263.5143**	**0.0100**		**263.7242**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	6.2736	75.8191	40.7814	0.0574		3.2220	3.2220		2.9643	2.9643		5,875.0677	5,875.0677	1.8001		5,912.8700
Total	**6.2736**	**75.8191**	**40.7814**	**0.0574**	**18.0663**	**3.2220**	**21.2883**	**9.9307**	**2.9643**	**12.8950**		**5,875.0677**	**5,875.0677**	**1.8001**		**5,912.8700**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	6.2736	75.8191	40.7814	0.0574		3.2220	3.2220		2.9643	2.9643	0.0000	5,875.0676	5,875.0676	1.8001		5,912.8700
Total	**6.2736**	**75.8191**	**40.7814**	**0.0574**	**7.0458**	**3.2220**	**10.2679**	**3.8730**	**2.9643**	**6.8372**	**0.0000**	**5,875.0676**	**5,875.0676**	**1.8001**		**5,912.8700**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7412	0.0000	8.7412	3.6068	0.0000	3.6068			0.0000			0.0000
Off-Road	8.1197	97.9938	57.7109	0.0858		4.2079	4.2079		3.8712	3.8712		8,777.1134	8,777.1134	2.6893		8,833.5885
Total	**8.1197**	**97.9938**	**57.7109**	**0.0858**	**8.7412**	**4.2079**	**12.9491**	**3.6068**	**3.8712**	**7.4780**		**8,777.1134**	**8,777.1134**	**2.6893**		**8,833.5885**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3166	19.9884	16.6838	0.0559	1.3063	0.2850	1.5914	0.3577	0.2622	0.6199		5,540.4221	5,540.4221	0.0415		5,541.2930
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.1124	1.1755	2.7400e-003	0.2236	2.0300e-003	0.2256	0.0593	1.8700e-003	0.0612		223.3071	223.3071	0.0124		223.5668
Total	**1.3997**	**20.1008**	**17.8593**	**0.0586**	**1.5299**	**0.2871**	**1.8170**	**0.4170**	**0.2641**	**0.6811**		**5,763.7292**	**5,763.7292**	**0.0538**		**5,764.8598**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4091	0.0000	3.4091	1.4066	0.0000	1.4066			0.0000			0.0000
Off-Road	8.1197	97.9938	57.7109	0.0858		4.2079	4.2079		3.8712	3.8712	0.0000	8,777.1134	8,777.1134	2.6893		8,833.5885
Total	**8.1197**	**97.9938**	**57.7109**	**0.0858**	**3.4091**	**4.2079**	**7.6169**	**1.4066**	**3.8712**	**5.2779**	**0.0000**	**8,777.1134**	**8,777.1134**	**2.6893**		**8,833.5885**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3166	19.9884	16.6838	0.0559	1.3063	0.2850	1.5914	0.3577	0.2622	0.6199		5,540.4221	5,540.4221	0.0415		5,541.2930
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.1124	1.1755	2.7400e-003	0.2236	2.0300e-003	0.2256	0.0593	1.8700e-003	0.0612		223.3071	223.3071	0.0124		223.5668
Total	**1.3997**	**20.1008**	**17.8593**	**0.0586**	**1.5299**	**0.2871**	**1.8170**	**0.4170**	**0.2641**	**0.6811**		**5,763.7292**	**5,763.7292**	**0.0538**		**5,764.8598**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.6043	57.0175	38.7427	0.0574		3.8199	3.8199		3.5828	3.5828		5,662.6189	5,662.6189	1.4168		5,692.3707
Total	**6.6043**	**57.0175**	**38.7427**	**0.0574**		**3.8199**	**3.8199**		**3.5828**	**3.5828**		**5,662.6189**	**5,662.6189**	**1.4168**		**5,692.3707**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5754	5.5579	7.9837	0.0148	0.4243	0.0837	0.5080	0.1207	0.0770	0.1977		1,461.3244	1,461.3244	0.0110		1,461.5545
Worker	0.7188	0.9726	10.1684	0.0237	1.9337	0.0175	1.9513	0.5128	0.0162	0.5290		1,931.6063	1,931.6063	0.1070		1,933.8527
Total	**1.2942**	**6.5305**	**18.1521**	**0.0385**	**2.3580**	**0.1012**	**2.4592**	**0.6336**	**0.0932**	**0.7267**		**3,392.9306**	**3,392.9306**	**0.1179**		**3,395.4072**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.6043	57.0175	38.7427	0.0574		3.8199	3.8199		3.5828	3.5828	0.0000	5,662.6188	5,662.6188	1.4168		5,692.3707
Total	**6.6043**	**57.0175**	**38.7427**	**0.0574**		**3.8199**	**3.8199**		**3.5828**	**3.5828**	**0.0000**	**5,662.6188**	**5,662.6188**	**1.4168**		**5,692.3707**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5754	5.5579	7.9837	0.0148	0.4243	0.0837	0.5080	0.1207	0.0770	0.1977		1,461.3244	1,461.3244	0.0110		1,461.5545
Worker	0.7188	0.9726	10.1684	0.0237	1.9337	0.0175	1.9513	0.5128	0.0162	0.5290		1,931.6063	1,931.6063	0.1070		1,933.8527
Total	**1.2942**	**6.5305**	**18.1521**	**0.0385**	**2.3580**	**0.1012**	**2.4592**	**0.6336**	**0.0932**	**0.7267**		**3,392.9306**	**3,392.9306**	**0.1179**		**3,395.4072**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3960**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0843	0.8817	2.0600e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		167.4803	167.4803	9.2800e-003		167.6751
Total	**0.0623**	**0.0843**	**0.8817**	**2.0600e-003**	**0.1677**	**1.5200e-003**	**0.1692**	**0.0445**	**1.4000e-003**	**0.0459**		**167.4803**	**167.4803**	**9.2800e-003**		**167.6751**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3960**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0843	0.8817	2.0600e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		167.4803	167.4803	9.2800e-003		167.6751
Total	**0.0623**	**0.0843**	**0.8817**	**2.0600e-003**	**0.1677**	**1.5200e-003**	**0.1692**	**0.0445**	**1.4000e-003**	**0.0459**		**167.4803**	**167.4803**	**9.2800e-003**		**167.6751**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311		375.2641	375.2641	0.0396		376.0961
Total	**47.0434**	**2.9134**	**2.4908**	**3.9600e-003**		**0.2311**	**0.2311**		**0.2311**	**0.2311**		**375.2641**	**375.2641**	**0.0396**		**376.0961**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1454	0.1968	2.0572	4.8000e-003	0.3912	3.5400e-003	0.3948	0.1038	3.2700e-003	0.1070		390.7874	390.7874	0.0216		391.2419
Total	**0.1454**	**0.1968**	**2.0572**	**4.8000e-003**	**0.3912**	**3.5400e-003**	**0.3948**	**0.1038**	**3.2700e-003**	**0.1070**		**390.7874**	**390.7874**	**0.0216**		**391.2419**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311	0.0000	375.2641	375.2641	0.0396		376.0961
Total	**47.0434**	**2.9134**	**2.4908**	**3.9600e-003**		**0.2311**	**0.2311**		**0.2311**	**0.2311**	**0.0000**	**375.2641**	**375.2641**	**0.0396**		**376.0961**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1454	0.1968	2.0572	4.8000e-003	0.3912	3.5400e-003	0.3948	0.1038	3.2700e-003	0.1070		390.7874	390.7874	0.0216		391.2419
Total	**0.1454**	**0.1968**	**2.0572**	**4.8000e-003**	**0.3912**	**3.5400e-003**	**0.3948**	**0.1038**	**3.2700e-003**	**0.1070**		**390.7874**	**390.7874**	**0.0216**		**391.2419**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
Total	**46.9985**	**2.6743**	**2.4723**	**3.9600e-003**		**0.2007**	**0.2007**		**0.2007**	**0.2007**		**375.2647**	**375.2647**	**0.0357**		**376.0135**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1306	0.1786	1.8612	4.8000e-003	0.3912	3.4300e-003	0.3947	0.1038	3.1800e-003	0.1069		376.4571	376.4571	0.0201		376.8792
Total	**0.1306**	**0.1786**	**1.8612**	**4.8000e-003**	**0.3912**	**3.4300e-003**	**0.3947**	**0.1038**	**3.1800e-003**	**0.1069**		**376.4571**	**376.4571**	**0.0201**		**376.8792**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
Total	**46.9985**	**2.6743**	**2.4723**	**3.9600e-003**		**0.2007**	**0.2007**		**0.2007**	**0.2007**	**0.0000**	**375.2647**	**375.2647**	**0.0357**		**376.0135**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1306	0.1786	1.8612	4.8000e-003	0.3912	3.4300e-003	0.3947	0.1038	3.1800e-003	0.1069		376.4571	376.4571	0.0201		376.8792
Total	**0.1306**	**0.1786**	**1.8612**	**4.8000e-003**	**0.3912**	**3.4300e-003**	**0.3947**	**0.1038**	**3.1800e-003**	**0.1069**		**376.4571**	**376.4571**	**0.0201**		**376.8792**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.5800e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Unmitigated	6.5800e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**6.5800e-003**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**6.5800e-003**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Echelon Construction- Mitigated

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Based on a early 2018 opening year

Off-road Equipment - Based on a 8 hour workday

Off-road Equipment - Equipment doubled due to shortened construction duration

Off-road Equipment - Tractor=crawler tractor; based on a maximum 5 acre disturbance area

Off-road Equipment -

Off-road Equipment - Tractor=crawler tractors

Demolition -

Grading -

Architectural Coating - Based on Rule 1113- all flat, nonflat, and default coatings shall be no more than 50 g/L VOC content

Vehicle Trips - Construction only

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation - During construction activity, all crawler tractors and rubber tired dozers shall be CARB certified Tier 3 or higher

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	300.00	150.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	50.00
tblEnergyUse	LightingElect	4.29	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	5.62	0.00
tblEnergyUse	T24NG	10.54	0.00
tblGrading	AcresOfGrading	225.00	125.00
tblGrading	AcresOfGrading	20.00	0.00
tblGrading	MaterialImported	0.00	30,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	305.50	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	20.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	WD_TR	6.96	0.00
tblWater	IndoorWaterUseRate	56,973,062.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	47.1835	117.4055	73.2636	0.1447	18.2675	4.4943	21.4952	9.9840	4.1347	12.9536	0.0000	14,567.1871	14,567.1871	2.7426	0.0000	14,624.7814
2018	47.1246	2.8354	4.4711	9.0500e-003	0.3912	0.2042	0.5954	0.1038	0.2039	0.3077	0.0000	774.1723	774.1723	0.0558	0.0000	775.3432
Total	**94.3081**	**120.2409**	**77.7348**	**0.1537**	**18.6587**	**4.6985**	**22.0906**	**10.0878**	**4.3386**	**13.2612**	**0.0000**	**15,341.3593**	**15,341.3593**	**2.7984**	**0.0000**	**15,400.1246**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	47.1835	97.5346	70.7079	0.1447	7.2470	3.9203	8.5626	3.9263	3.6752	5.1923	0.0000	14,567.1871	14,567.1871	2.7426	0.0000	14,624.7814
2018	47.1246	2.8354	4.4711	9.0500e-003	0.3912	0.2042	0.5954	0.1038	0.2039	0.3077	0.0000	774.1723	774.1723	0.0558	0.0000	775.3432
Total	**94.3081**	**100.3700**	**75.1791**	**0.1537**	**7.6383**	**4.1244**	**9.1580**	**4.0301**	**3.8791**	**5.4999**	**0.0000**	**15,341.3593**	**15,341.3593**	**2.7984**	**0.0000**	**15,400.1246**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**16.53**	**3.29**	**0.00**	**59.06**	**12.22**	**58.54**	**60.05**	**10.59**	**58.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1715	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1715**	**6.4000e-004**	**0.0685**	**1.0000e-005**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**	**0.0000**	**0.1531**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1715	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1715**	**6.4000e-004**	**0.0685**	**1.0000e-005**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**	**0.0000**	**0.1531**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/13/2017	5	10	
2	Site Preparation	Site Preparation	1/14/2017	1/27/2017	5	10	
3	Grading	Grading	1/28/2017	4/7/2017	5	50	
4	Building Construction	Building Construction	4/8/2017	11/3/2017	5	150	
5	Paving	Paving	11/4/2017	12/1/2017	5	20	
6	Architectural Coating	Architectural Coating	12/2/2017	1/5/2018	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 125

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 377,025; Non-Residential Outdoor: 125,675 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Crawler Tractors	4	8.00	208	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	208	0.43
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	3	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	20.00	0.00	3,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	173.00	68.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2756	0.0000	0.2756	0.0417	0.0000	0.0417			0.0000			0.0000
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**	**0.2756**	**2.1252**	**2.4008**	**0.0417**	**1.9797**	**2.0215**		**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0217	0.3347	0.2478	9.7000e-004	0.0226	4.9300e-003	0.0276	6.2000e-003	4.5300e-003	0.0107		96.2601	96.2601	7.1000e-004		96.2750
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		177.4541	177.4541	9.2800e-003		177.6489
Total	**0.0817**	**0.4108**	**1.1906**	**3.1500e-003**	**0.1903**	**6.4500e-003**	**0.1968**	**0.0507**	**5.9300e-003**	**0.0566**		**273.7143**	**273.7143**	**9.9900e-003**		**273.9239**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1075	0.0000	0.1075	0.0163	0.0000	0.0163			0.0000			0.0000
Off-Road	2.0993	24.6590	23.3669	0.0399		1.2161	1.2161		1.1687	1.1687	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**2.0993**	**24.6590**	**23.3669**	**0.0399**	**0.1075**	**1.2161**	**1.3236**	**0.0163**	**1.1687**	**1.1850**	**0.0000**	**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0217	0.3347	0.2478	9.7000e-004	0.0226	4.9300e-003	0.0276	6.2000e-003	4.5300e-003	0.0107		96.2601	96.2601	7.1000e-004		96.2750
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		177.4541	177.4541	9.2800e-003		177.6489
Total	**0.0817**	**0.4108**	**1.1906**	**3.1500e-003**	**0.1903**	**6.4500e-003**	**0.1968**	**0.0507**	**5.9300e-003**	**0.0566**		**273.7143**	**273.7143**	**9.9900e-003**		**273.9239**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	6.2811	75.9205	40.8121	0.0575		3.2259	3.2259		2.9678	2.9678		5,883.8691	5,883.8691	1.8028		5,921.7280
Total	**6.2811**	**75.9205**	**40.8121**	**0.0575**	**18.0663**	**3.2259**	**21.2922**	**9.9307**	**2.9678**	**12.8985**		**5,883.8691**	**5,883.8691**	**1.8028**		**5,921.7280**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	1.4048	27.1596	30.4375	0.0575		1.0302	1.0302		1.0302	1.0302	0.0000	5,883.8691	5,883.8691	1.8028		5,921.7280
Total	**1.4048**	**27.1596**	**30.4375**	**0.0575**	**7.0458**	**1.0302**	**8.0760**	**3.8730**	**1.0302**	**4.9032**	**0.0000**	**5,883.8691**	**5,883.8691**	**1.8028**		**5,921.7280**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0720	0.0913	1.1313	2.6200e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		212.9450	212.9450	0.0111		213.1787
Total	**0.0720**	**0.0913**	**1.1313**	**2.6200e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**212.9450**	**212.9450**	**0.0111**		**213.1787**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7412	0.0000	8.7412	3.6068	0.0000	3.6068			0.0000			0.0000
Off-Road	8.1197	97.9938	57.7109	0.0858		4.2079	4.2079		3.8712	3.8712		8,777.1134	8,777.1134	2.6893		8,833.5885
Total	**8.1197**	**97.9938**	**57.7109**	**0.0858**	**8.7412**	**4.2079**	**12.9491**	**3.6068**	**3.8712**	**7.4780**		**8,777.1134**	**8,777.1134**	**2.6893**		**8,833.5885**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2492	19.3103	14.2957	0.0560	1.3063	0.2844	1.5907	0.3577	0.2616	0.6193		5,553.4682	5,553.4682	0.0409		5,554.3277
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0801	0.1014	1.2570	2.9100e-003	0.2236	2.0300e-003	0.2256	0.0593	1.8700e-003	0.0612		236.6055	236.6055	0.0124		236.8652
Total	**1.3292**	**19.4117**	**15.5528**	**0.0589**	**1.5299**	**0.2864**	**1.8163**	**0.4170**	**0.2635**	**0.6805**		**5,790.0737**	**5,790.0737**	**0.0533**		**5,791.1929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4091	0.0000	3.4091	1.4066	0.0000	1.4066			0.0000			0.0000
Off-Road	6.1688	78.1229	55.1552	0.0858		3.3373	3.3373		3.1052	3.1052	0.0000	8,777.1134	8,777.1134	2.6893		8,833.5885
Total	**6.1688**	**78.1229**	**55.1552**	**0.0858**	**3.4091**	**3.3373**	**6.7463**	**1.4066**	**3.1052**	**4.5118**	**0.0000**	**8,777.1134**	**8,777.1134**	**2.6893**		**8,833.5885**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2492	19.3103	14.2957	0.0560	1.3063	0.2844	1.5907	0.3577	0.2616	0.6193		5,553.4682	5,553.4682	0.0409		5,554.3277
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0801	0.1014	1.2570	2.9100e-003	0.2236	2.0300e-003	0.2256	0.0593	1.8700e-003	0.0612		236.6055	236.6055	0.0124		236.8652
Total	**1.3292**	**19.4117**	**15.5528**	**0.0589**	**1.5299**	**0.2864**	**1.8163**	**0.4170**	**0.2635**	**0.6805**		**5,790.0737**	**5,790.0737**	**0.0533**		**5,791.1929**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.6043	57.0175	38.7427	0.0574		3.8199	3.8199		3.5828	3.5828		5,662.6189	5,662.6189	1.4168		5,692.3707
Total	**6.6043**	**57.0175**	**38.7427**	**0.0574**		**3.8199**	**3.8199**		**3.5828**	**3.5828**		**5,662.6189**	**5,662.6189**	**1.4168**		**5,692.3707**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5239	5.4247	6.4908	0.0149	0.4243	0.0829	0.5071	0.1207	0.0762	0.1970		1,473.5867	1,473.5867	0.0106		1,473.8101
Worker	0.6924	0.8771	10.8733	0.0251	1.9337	0.0175	1.9513	0.5128	0.0162	0.5290		2,046.6376	2,046.6376	0.1070		2,048.8841
Total	**1.2163**	**6.3018**	**17.3642**	**0.0401**	**2.3580**	**0.1004**	**2.4584**	**0.6336**	**0.0924**	**0.7259**		**3,520.2244**	**3,520.2244**	**0.1176**		**3,522.6942**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.6043	57.0175	38.7427	0.0574		3.8199	3.8199		3.5828	3.5828	0.0000	5,662.6188	5,662.6188	1.4168		5,692.3707
Total	**6.6043**	**57.0175**	**38.7427**	**0.0574**		**3.8199**	**3.8199**		**3.5828**	**3.5828**	**0.0000**	**5,662.6188**	**5,662.6188**	**1.4168**		**5,692.3707**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5239	5.4247	6.4908	0.0149	0.4243	0.0829	0.5071	0.1207	0.0762	0.1970		1,473.5867	1,473.5867	0.0106		1,473.8101
Worker	0.6924	0.8771	10.8733	0.0251	1.9337	0.0175	1.9513	0.5128	0.0162	0.5290		2,046.6376	2,046.6376	0.1070		2,048.8841
Total	**1.2163**	**6.3018**	**17.3642**	**0.0401**	**2.3580**	**0.1004**	**2.4584**	**0.6336**	**0.0924**	**0.7259**		**3,520.2244**	**3,520.2244**	**0.1176**		**3,522.6942**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3960**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		177.4541	177.4541	9.2800e-003		177.6489
Total	**0.0600**	**0.0761**	**0.9428**	**2.1800e-003**	**0.1677**	**1.5200e-003**	**0.1692**	**0.0445**	**1.4000e-003**	**0.0459**		**177.4541**	**177.4541**	**9.2800e-003**		**177.6489**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3960**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0600	0.0761	0.9428	2.1800e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		177.4541	177.4541	9.2800e-003		177.6489
Total	**0.0600**	**0.0761**	**0.9428**	**2.1800e-003**	**0.1677**	**1.5200e-003**	**0.1692**	**0.0445**	**1.4000e-003**	**0.0459**		**177.4541**	**177.4541**	**9.2800e-003**		**177.6489**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311		375.2641	375.2641	0.0396		376.0961
Total	**47.0434**	**2.9134**	**2.4908**	**3.9600e-003**		**0.2311**	**0.2311**		**0.2311**	**0.2311**		**375.2641**	**375.2641**	**0.0396**		**376.0961**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1401	0.1774	2.1998	5.0900e-003	0.3912	3.5400e-003	0.3948	0.1038	3.2700e-003	0.1070		414.0596	414.0596	0.0216		414.5141
Total	**0.1401**	**0.1774**	**2.1998**	**5.0900e-003**	**0.3912**	**3.5400e-003**	**0.3948**	**0.1038**	**3.2700e-003**	**0.1070**		**414.0596**	**414.0596**	**0.0216**		**414.5141**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311	0.0000	375.2641	375.2641	0.0396		376.0961
Total	**47.0434**	**2.9134**	**2.4908**	**3.9600e-003**		**0.2311**	**0.2311**		**0.2311**	**0.2311**	**0.0000**	**375.2641**	**375.2641**	**0.0396**		**376.0961**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1401	0.1774	2.1998	5.0900e-003	0.3912	3.5400e-003	0.3948	0.1038	3.2700e-003	0.1070		414.0596	414.0596	0.0216		414.5141
Total	**0.1401**	**0.1774**	**2.1998**	**5.0900e-003**	**0.3912**	**3.5400e-003**	**0.3948**	**0.1038**	**3.2700e-003**	**0.1070**		**414.0596**	**414.0596**	**0.0216**		**414.5141**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
Total	**46.9985**	**2.6743**	**2.4723**	**3.9600e-003**		**0.2007**	**0.2007**		**0.2007**	**0.2007**		**375.2647**	**375.2647**	**0.0357**		**376.0135**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1261	0.1611	1.9989	5.0900e-003	0.3912	3.4300e-003	0.3947	0.1038	3.1800e-003	0.1069		398.9075	398.9075	0.0201		399.3297
Total	**0.1261**	**0.1611**	**1.9989**	**5.0900e-003**	**0.3912**	**3.4300e-003**	**0.3947**	**0.1038**	**3.1800e-003**	**0.1069**		**398.9075**	**398.9075**	**0.0201**		**399.3297**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
Total	**46.9985**	**2.6743**	**2.4723**	**3.9600e-003**		**0.2007**	**0.2007**		**0.2007**	**0.2007**	**0.0000**	**375.2647**	**375.2647**	**0.0357**		**376.0135**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1261	0.1611	1.9989	5.0900e-003	0.3912	3.4300e-003	0.3947	0.1038	3.1800e-003	0.1069		398.9075	398.9075	0.0201		399.3297
Total	**0.1261**	**0.1611**	**1.9989**	**5.0900e-003**	**0.3912**	**3.4300e-003**	**0.3947**	**0.1038**	**3.1800e-003**	**0.1069**		**398.9075**	**398.9075**	**0.0201**		**399.3297**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1715	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Unmitigated	8.1715	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**8.1715**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**8.1715**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Echelon Construction- Mitigated

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Based on a early 2018 opening year

Off-road Equipment - Based on a 8 hour workday

Off-road Equipment - Equipment doubled due to shortened construction duration

Off-road Equipment - Tractor=crawler tractor; based on a maximum 5 acre disturbance area

Off-road Equipment -

Off-road Equipment - Tractor=crawler tractors

Demolition -

Grading -

Architectural Coating - Based on Rule 1113- all flat, nonflat, and default coatings shall be no more than 50 g/L VOC content

Vehicle Trips - Construction only

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation - During construction activity, all crawler tractors and rubber tired dozers shall be CARB certified Tier 3 or higher

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	300.00	150.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	50.00
tblEnergyUse	LightingElect	4.29	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	5.62	0.00
tblEnergyUse	T24NG	10.54	0.00
tblGrading	AcresOfGrading	225.00	125.00
tblGrading	AcresOfGrading	20.00	0.00
tblGrading	MaterialImported	0.00	30,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	305.50	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	20.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	WD_TR	6.96	0.00
tblWater	IndoorWaterUseRate	56,973,062.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	47.1888	118.0946	75.5702	0.1444	18.2675	4.4949	21.4952	9.9840	4.1353	12.9536	0.0000	14,540.8426	14,540.8426	2.7431	0.0000	14,598.4483
2018	47.1291	2.8529	4.3334	8.7600e-003	0.3912	0.2042	0.5954	0.1038	0.2039	0.3077	0.0000	751.7218	751.7218	0.0558	0.0000	752.8928
Total	**94.3179**	**120.9475**	**79.9036**	**0.1532**	**18.6587**	**4.6991**	**22.0906**	**10.0878**	**4.3392**	**13.2612**	**0.0000**	**15,292.5644**	**15,292.5644**	**2.7989**	**0.0000**	**15,351.3410**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	47.1888	98.2237	73.0145	0.1444	7.2470	3.9211	8.5633	3.9263	3.6759	5.1929	0.0000	14,540.8426	14,540.8426	2.7431	0.0000	14,598.4482
2018	47.1291	2.8529	4.3334	8.7600e-003	0.3912	0.2042	0.5954	0.1038	0.2039	0.3077	0.0000	751.7218	751.7218	0.0558	0.0000	752.8928
Total	**94.3179**	**101.0766**	**77.3479**	**0.1532**	**7.6383**	**4.1253**	**9.1587**	**4.0301**	**3.8799**	**5.5005**	**0.0000**	**15,292.5644**	**15,292.5644**	**2.7989**	**0.0000**	**15,351.3410**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**16.43**	**3.20**	**0.00**	**59.06**	**12.21**	**58.54**	**60.05**	**10.59**	**58.52**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1715	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1715**	**6.4000e-004**	**0.0685**	**1.0000e-005**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**	**0.0000**	**0.1531**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1715	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1715**	**6.4000e-004**	**0.0685**	**1.0000e-005**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**	**0.0000**	**0.1531**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/13/2017	5	10	
2	Site Preparation	Site Preparation	1/14/2017	1/27/2017	5	10	
3	Grading	Grading	1/28/2017	4/7/2017	5	50	
4	Building Construction	Building Construction	4/8/2017	11/3/2017	5	150	
5	Paving	Paving	11/4/2017	12/1/2017	5	20	
6	Architectural Coating	Architectural Coating	12/2/2017	1/5/2018	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 125

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 377,025; Non-Residential Outdoor: 125,675 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Crawler Tractors	4	8.00	208	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	208	0.43
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	3	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	20.00	0.00	3,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	173.00	68.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2756	0.0000	0.2756	0.0417	0.0000	0.0417			0.0000			0.0000
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**	**0.2756**	**2.1252**	**2.4008**	**0.0417**	**1.9797**	**2.0215**		**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0228	0.3465	0.2892	9.7000e-004	0.0226	4.9400e-003	0.0276	6.2000e-003	4.5400e-003	0.0107		96.0340	96.0340	7.2000e-004		96.0491
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0843	0.8817	2.0600e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		167.4803	167.4803	9.2800e-003		167.6751
Total	**0.0851**	**0.4308**	**1.1708**	**3.0300e-003**	**0.1903**	**6.4600e-003**	**0.1968**	**0.0507**	**5.9400e-003**	**0.0566**		**263.5143**	**263.5143**	**0.0100**		**263.7242**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1075	0.0000	0.1075	0.0163	0.0000	0.0163			0.0000			0.0000
Off-Road	2.0993	24.6590	23.3669	0.0399		1.2161	1.2161		1.1687	1.1687	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**2.0993**	**24.6590**	**23.3669**	**0.0399**	**0.1075**	**1.2161**	**1.3236**	**0.0163**	**1.1687**	**1.1850**	**0.0000**	**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0228	0.3465	0.2892	9.7000e-004	0.0226	4.9400e-003	0.0276	6.2000e-003	4.5400e-003	0.0107		96.0340	96.0340	7.2000e-004		96.0491
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0843	0.8817	2.0600e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		167.4803	167.4803	9.2800e-003		167.6751
Total	**0.0851**	**0.4308**	**1.1708**	**3.0300e-003**	**0.1903**	**6.4600e-003**	**0.1968**	**0.0507**	**5.9400e-003**	**0.0566**		**263.5143**	**263.5143**	**0.0100**		**263.7242**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	6.2811	75.9205	40.8121	0.0575		3.2259	3.2259		2.9678	2.9678		5,883.8691	5,883.8691	1.8028		5,921.7280
Total	**6.2811**	**75.9205**	**40.8121**	**0.0575**	**18.0663**	**3.2259**	**21.2922**	**9.9307**	**2.9678**	**12.8985**		**5,883.8691**	**5,883.8691**	**1.8028**		**5,921.7280**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	1.4048	27.1596	30.4375	0.0575		1.0302	1.0302		1.0302	1.0302	0.0000	5,883.8691	5,883.8691	1.8028		5,921.7280
Total	**1.4048**	**27.1596**	**30.4375**	**0.0575**	**7.0458**	**1.0302**	**8.0760**	**3.8730**	**1.0302**	**4.9032**	**0.0000**	**5,883.8691**	**5,883.8691**	**1.8028**		**5,921.7280**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.1012	1.0580	2.4700e-003	0.2012	1.8200e-003	0.2030	0.0534	1.6800e-003	0.0550		200.9764	200.9764	0.0111		201.2101
Total	**0.0748**	**0.1012**	**1.0580**	**2.4700e-003**	**0.2012**	**1.8200e-003**	**0.2030**	**0.0534**	**1.6800e-003**	**0.0550**		**200.9764**	**200.9764**	**0.0111**		**201.2101**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.7412	0.0000	8.7412	3.6068	0.0000	3.6068			0.0000			0.0000
Off-Road	8.1197	97.9938	57.7109	0.0858		4.2079	4.2079		3.8712	3.8712		8,777.1134	8,777.1134	2.6893		8,833.5885
Total	**8.1197**	**97.9938**	**57.7109**	**0.0858**	**8.7412**	**4.2079**	**12.9491**	**3.6068**	**3.8712**	**7.4780**		**8,777.1134**	**8,777.1134**	**2.6893**		**8,833.5885**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3166	19.9884	16.6838	0.0559	1.3063	0.2850	1.5914	0.3577	0.2622	0.6199		5,540.4221	5,540.4221	0.0415		5,541.2930
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.1124	1.1755	2.7400e-003	0.2236	2.0300e-003	0.2256	0.0593	1.8700e-003	0.0612		223.3071	223.3071	0.0124		223.5668
Total	**1.3997**	**20.1008**	**17.8593**	**0.0586**	**1.5299**	**0.2871**	**1.8170**	**0.4170**	**0.2641**	**0.6811**		**5,763.7292**	**5,763.7292**	**0.0538**		**5,764.8598**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4091	0.0000	3.4091	1.4066	0.0000	1.4066			0.0000			0.0000
Off-Road	6.1688	78.1229	55.1552	0.0858		3.3373	3.3373		3.1052	3.1052	0.0000	8,777.1134	8,777.1134	2.6893		8,833.5885
Total	**6.1688**	**78.1229**	**55.1552**	**0.0858**	**3.4091**	**3.3373**	**6.7463**	**1.4066**	**3.1052**	**4.5118**	**0.0000**	**8,777.1134**	**8,777.1134**	**2.6893**		**8,833.5885**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3166	19.9884	16.6838	0.0559	1.3063	0.2850	1.5914	0.3577	0.2622	0.6199		5,540.4221	5,540.4221	0.0415		5,541.2930
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0831	0.1124	1.1755	2.7400e-003	0.2236	2.0300e-003	0.2256	0.0593	1.8700e-003	0.0612		223.3071	223.3071	0.0124		223.5668
Total	**1.3997**	**20.1008**	**17.8593**	**0.0586**	**1.5299**	**0.2871**	**1.8170**	**0.4170**	**0.2641**	**0.6811**		**5,763.7292**	**5,763.7292**	**0.0538**		**5,764.8598**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.6043	57.0175	38.7427	0.0574		3.8199	3.8199		3.5828	3.5828		5,662.6189	5,662.6189	1.4168		5,692.3707
Total	**6.6043**	**57.0175**	**38.7427**	**0.0574**		**3.8199**	**3.8199**		**3.5828**	**3.5828**		**5,662.6189**	**5,662.6189**	**1.4168**		**5,692.3707**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5754	5.5579	7.9837	0.0148	0.4243	0.0837	0.5080	0.1207	0.0770	0.1977		1,461.3244	1,461.3244	0.0110		1,461.5545
Worker	0.7188	0.9726	10.1684	0.0237	1.9337	0.0175	1.9513	0.5128	0.0162	0.5290		1,931.6063	1,931.6063	0.1070		1,933.8527
Total	**1.2942**	**6.5305**	**18.1521**	**0.0385**	**2.3580**	**0.1012**	**2.4592**	**0.6336**	**0.0932**	**0.7267**		**3,392.9306**	**3,392.9306**	**0.1179**		**3,395.4072**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.6043	57.0175	38.7427	0.0574		3.8199	3.8199		3.5828	3.5828	0.0000	5,662.6188	5,662.6188	1.4168		5,692.3707
Total	**6.6043**	**57.0175**	**38.7427**	**0.0574**		**3.8199**	**3.8199**		**3.5828**	**3.5828**	**0.0000**	**5,662.6188**	**5,662.6188**	**1.4168**		**5,692.3707**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5754	5.5579	7.9837	0.0148	0.4243	0.0837	0.5080	0.1207	0.0770	0.1977		1,461.3244	1,461.3244	0.0110		1,461.5545
Worker	0.7188	0.9726	10.1684	0.0237	1.9337	0.0175	1.9513	0.5128	0.0162	0.5290		1,931.6063	1,931.6063	0.1070		1,933.8527
Total	**1.2942**	**6.5305**	**18.1521**	**0.0385**	**2.3580**	**0.1012**	**2.4592**	**0.6336**	**0.0932**	**0.7267**		**3,392.9306**	**3,392.9306**	**0.1179**		**3,395.4072**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3960**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0843	0.8817	2.0600e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		167.4803	167.4803	9.2800e-003		167.6751
Total	**0.0623**	**0.0843**	**0.8817**	**2.0600e-003**	**0.1677**	**1.5200e-003**	**0.1692**	**0.0445**	**1.4000e-003**	**0.0459**		**167.4803**	**167.4803**	**9.2800e-003**		**167.6751**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.4886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3960**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0843	0.8817	2.0600e-003	0.1677	1.5200e-003	0.1692	0.0445	1.4000e-003	0.0459		167.4803	167.4803	9.2800e-003		167.6751
Total	**0.0623**	**0.0843**	**0.8817**	**2.0600e-003**	**0.1677**	**1.5200e-003**	**0.1692**	**0.0445**	**1.4000e-003**	**0.0459**		**167.4803**	**167.4803**	**9.2800e-003**		**167.6751**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311		375.2641	375.2641	0.0396		376.0961
Total	**47.0434**	**2.9134**	**2.4908**	**3.9600e-003**		**0.2311**	**0.2311**		**0.2311**	**0.2311**		**375.2641**	**375.2641**	**0.0396**		**376.0961**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1454	0.1968	2.0572	4.8000e-003	0.3912	3.5400e-003	0.3948	0.1038	3.2700e-003	0.1070		390.7874	390.7874	0.0216		391.2419
Total	**0.1454**	**0.1968**	**2.0572**	**4.8000e-003**	**0.3912**	**3.5400e-003**	**0.3948**	**0.1038**	**3.2700e-003**	**0.1070**		**390.7874**	**390.7874**	**0.0216**		**391.2419**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4431	2.9134	2.4908	3.9600e-003		0.2311	0.2311		0.2311	0.2311	0.0000	375.2641	375.2641	0.0396		376.0961
Total	**47.0434**	**2.9134**	**2.4908**	**3.9600e-003**		**0.2311**	**0.2311**		**0.2311**	**0.2311**	**0.0000**	**375.2641**	**375.2641**	**0.0396**		**376.0961**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1454	0.1968	2.0572	4.8000e-003	0.3912	3.5400e-003	0.3948	0.1038	3.2700e-003	0.1070		390.7874	390.7874	0.0216		391.2419
Total	**0.1454**	**0.1968**	**2.0572**	**4.8000e-003**	**0.3912**	**3.5400e-003**	**0.3948**	**0.1038**	**3.2700e-003**	**0.1070**		**390.7874**	**390.7874**	**0.0216**		**391.2419**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007		375.2647	375.2647	0.0357		376.0135
Total	**46.9985**	**2.6743**	**2.4723**	**3.9600e-003**		**0.2007**	**0.2007**		**0.2007**	**0.2007**		**375.2647**	**375.2647**	**0.0357**		**376.0135**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1306	0.1786	1.8612	4.8000e-003	0.3912	3.4300e-003	0.3947	0.1038	3.1800e-003	0.1069		376.4571	376.4571	0.0201		376.8792
Total	**0.1306**	**0.1786**	**1.8612**	**4.8000e-003**	**0.3912**	**3.4300e-003**	**0.3947**	**0.1038**	**3.1800e-003**	**0.1069**		**376.4571**	**376.4571**	**0.0201**		**376.8792**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	46.6003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3982	2.6743	2.4723	3.9600e-003		0.2007	0.2007		0.2007	0.2007	0.0000	375.2647	375.2647	0.0357		376.0135
Total	**46.9985**	**2.6743**	**2.4723**	**3.9600e-003**		**0.2007**	**0.2007**		**0.2007**	**0.2007**	**0.0000**	**375.2647**	**375.2647**	**0.0357**		**376.0135**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1306	0.1786	1.8612	4.8000e-003	0.3912	3.4300e-003	0.3947	0.1038	3.1800e-003	0.1069		376.4571	376.4571	0.0201		376.8792
Total	**0.1306**	**0.1786**	**1.8612**	**4.8000e-003**	**0.3912**	**3.4300e-003**	**0.3947**	**0.1038**	**3.1800e-003**	**0.1069**		**376.4571**	**376.4571**	**0.0201**		**376.8792**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1715	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Unmitigated	8.1715	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**8.1715**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**8.1715**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Echelon Operations- Trucks

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

On-road Fugitive Dust - Operation run only

Architectural Coating - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - .

Vechicle Emission Factors - .

Vechicle Emission Factors - .

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,675.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	377,025.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	0.00
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	5.62	4.39
tblEnergyUse	T24NG	10.54	8.77
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64

tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblVehicleEF	HHD	0.03	0.42
tblVehicleEF	HHD	0.03	0.42
tblVehicleEF	HHD	0.03	0.42
tblVehicleEF	LDA	0.53	0.00
tblVehicleEF	LDA	0.53	0.00
tblVehicleEF	LDA	0.53	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.53
tblVehicleEF	LHD1	0.04	0.53
tblVehicleEF	LHD1	0.04	0.53
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MH	1.6710e-003	0.00

tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	46.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	2.49	0.44
tblVehicleTrips	SU_TR	0.73	0.44
tblVehicleTrips	WD_TR	6.96	0.44

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Mobile	2.2619	30.8471	23.4775	0.1180	4.1062	0.4661	4.5723	1.1174	0.4288	1.5462		11,395.6567	11,395.6567	0.1542		11,398.8941
Total	**12.0960**	**31.4539**	**24.0551**	**0.1216**	**4.1062**	**0.5124**	**4.6186**	**1.1174**	**0.4751**	**1.5925**		**12,123.1984**	**12,123.1984**	**0.1685**	**0.0133**	**12,130.8710**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Mobile	2.2619	30.8471	23.4775	0.1180	4.1062	0.4661	4.5723	1.1174	0.4288	1.5462		11,395.6567	11,395.6567	0.1542		11,398.8941
Total	**12.0960**	**31.4539**	**24.0551**	**0.1216**	**4.1062**	**0.5124**	**4.6186**	**1.1174**	**0.4751**	**1.5925**		**12,123.1984**	**12,123.1984**	**0.1685**	**0.0133**	**12,130.8710**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2018	6/18/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2619	30.8471	23.4775	0.1180	4.1062	0.4661	4.5723	1.1174	0.4288	1.5462		11,395.6567	11,395.6567	0.1542		11,398.8941
Unmitigated	2.2619	30.8471	23.4775	0.1180	4.1062	0.4661	4.5723	1.1174	0.4288	1.5462		11,395.6567	11,395.6567	0.1542		11,398.8941

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	108.40	108.40	108.40	1,815,096	1,815,096
Parking Lot	0.00	0.00	0.00		
Total	108.40	108.40	108.40	1,815,096	1,815,096

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	46.00	0.00	0.00	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.531500	0.000000	0.047300	0.421200	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
NaturalGas Unmitigated	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	6182.87	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Total		**0.0667**	**0.6062**	**0.5092**	**3.6400e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**		**727.3970**	**727.3970**	**0.0139**	**0.0133**	**731.8238**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	6.18287	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Total		**0.0667**	**0.6062**	**0.5092**	**3.6400e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**		**727.3970**	**727.3970**	**0.0139**	**0.0133**	**731.8238**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Unmitigated	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**9.7674**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**9.7674**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Echelon Operations- Trucks

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

On-road Fugitive Dust - Operation run only

Architectural Coating - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - .

Vechicle Emission Factors - .

Vechicle Emission Factors - .

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,675.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	377,025.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	0.00
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	5.62	4.39
tblEnergyUse	T24NG	10.54	8.77
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64

tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblVehicleEF	HHD	0.03	0.42
tblVehicleEF	HHD	0.03	0.42
tblVehicleEF	HHD	0.03	0.42
tblVehicleEF	LDA	0.53	0.00
tblVehicleEF	LDA	0.53	0.00
tblVehicleEF	LDA	0.53	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.53
tblVehicleEF	LHD1	0.04	0.53
tblVehicleEF	LHD1	0.04	0.53
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MH	1.6710e-003	0.00

tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	46.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	2.49	0.44
tblVehicleTrips	SU_TR	0.73	0.44
tblVehicleTrips	WD_TR	6.96	0.44

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Mobile	2.3001	32.1367	24.9068	0.1179	4.1062	0.4665	4.5728	1.1174	0.4292	1.5466		11,386.8975	11,386.8975	0.1545		11,390.1423
Total	**12.1342**	**32.7435**	**25.4845**	**0.1216**	**4.1062**	**0.5129**	**4.6191**	**1.1174**	**0.4756**	**1.5929**		**12,114.4392**	**12,114.4392**	**0.1689**	**0.0133**	**12,122.1192**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Mobile	2.3001	32.1367	24.9068	0.1179	4.1062	0.4665	4.5728	1.1174	0.4292	1.5466		11,386.8975	11,386.8975	0.1545		11,390.1423
Total	**12.1342**	**32.7435**	**25.4845**	**0.1216**	**4.1062**	**0.5129**	**4.6191**	**1.1174**	**0.4756**	**1.5929**		**12,114.4392**	**12,114.4392**	**0.1689**	**0.0133**	**12,122.1192**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2018	6/18/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3001	32.1367	24.9068	0.1179	4.1062	0.4665	4.5728	1.1174	0.4292	1.5466		11,386.8975	11,386.8975	0.1545		11,390.1423
Unmitigated	2.3001	32.1367	24.9068	0.1179	4.1062	0.4665	4.5728	1.1174	0.4292	1.5466		11,386.8975	11,386.8975	0.1545		11,390.1423

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	108.40	108.40	108.40	1,815,096	1,815,096
Parking Lot	0.00	0.00	0.00		
Total	108.40	108.40	108.40	1,815,096	1,815,096

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	46.00	0.00	0.00	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.531500	0.000000	0.047300	0.421200	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
NaturalGas Unmitigated	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Industrial Park	6182.87	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0667**	**0.6062**	**0.5092**	**3.6400e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**		**727.3970**	**727.3970**	**0.0139**	**0.0133**	**731.8238**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	6.18287	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Total		**0.0667**	**0.6062**	**0.5092**	**3.6400e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**		**727.3970**	**727.3970**	**0.0139**	**0.0133**	**731.8238**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Unmitigated	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**9.7674**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**9.7674**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Echelon Operations-Passenger Cars

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

On-road Fugitive Dust - Operation run only

Architectural Coating - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,675.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	377,025.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	0.00
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	5.62	4.39
tblEnergyUse	T24NG	10.54	8.77
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64

tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.53	1.00
tblVehicleEF	LDA	0.53	1.00
tblVehicleEF	LDA	0.53	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MH	1.6710e-003	0.00

tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	2.49	1.89
tblVehicleTrips	SU_TR	0.73	1.89
tblVehicleTrips	WD_TR	6.96	1.89

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Mobile	1.0200	1.3815	18.8418	0.0672	5.8785	0.0387	5.9172	1.5583	0.0358	1.5941		5,085.5154	5,085.5154	0.2110		5,089.9453
Total	**10.8541**	**1.9883**	**19.4195**	**0.0708**	**5.8785**	**0.0850**	**5.9635**	**1.5583**	**0.0821**	**1.6404**		**5,813.0571**	**5,813.0571**	**0.2253**	**0.0133**	**5,821.9222**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Mobile	1.0200	1.3815	18.8418	0.0672	5.8785	0.0387	5.9172	1.5583	0.0358	1.5941		5,085.5154	5,085.5154	0.2110		5,089.9453
Total	**10.8541**	**1.9883**	**19.4195**	**0.0708**	**5.8785**	**0.0850**	**5.9635**	**1.5583**	**0.0821**	**1.6404**		**5,813.0571**	**5,813.0571**	**0.2253**	**0.0133**	**5,821.9222**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2018	6/18/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0200	1.3815	18.8418	0.0672	5.8785	0.0387	5.9172	1.5583	0.0358	1.5941		5,085.5154	5,085.5154	0.2110		5,089.9453
Unmitigated	1.0200	1.3815	18.8418	0.0672	5.8785	0.0387	5.9172	1.5583	0.0358	1.5941		5,085.5154	5,085.5154	0.2110		5,089.9453

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	466.13	466.13	466.13	2,816,556	2,816,556
Parking Lot	0.00	0.00	0.00		
Total	466.13	466.13	466.13	2,816,556	2,816,556

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	16.60	0.00	0.00	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
NaturalGas Unmitigated	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	6182.87	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Total		**0.0667**	**0.6062**	**0.5092**	**3.6400e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**		**727.3970**	**727.3970**	**0.0139**	**0.0133**	**731.8238**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	6.18287	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Total		**0.0667**	**0.6062**	**0.5092**	**3.6400e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**		**727.3970**	**727.3970**	**0.0139**	**0.0133**	**731.8238**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Unmitigated	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**9.7674**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**9.7674**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Echelon Operations-Passenger Cars

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

On-road Fugitive Dust - Operation run only

Architectural Coating - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,675.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	377,025.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	0.00
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	5.62	4.39
tblEnergyUse	T24NG	10.54	8.77
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64

tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.53	1.00
tblVehicleEF	LDA	0.53	1.00
tblVehicleEF	LDA	0.53	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MH	1.6710e-003	0.00

tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	2.49	1.89
tblVehicleTrips	SU_TR	0.73	1.89
tblVehicleTrips	WD_TR	6.96	1.89

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Mobile	1.0268	1.5251	17.3415	0.0632	5.8785	0.0387	5.9172	1.5583	0.0358	1.5941		4,790.6370	4,790.6370	0.2110		4,795.0670
Total	**10.8609**	**2.1319**	**17.9192**	**0.0669**	**5.8785**	**0.0850**	**5.9635**	**1.5583**	**0.0821**	**1.6404**		**5,518.1787**	**5,518.1787**	**0.2253**	**0.0133**	**5,527.0439**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Energy	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Mobile	1.0268	1.5251	17.3415	0.0632	5.8785	0.0387	5.9172	1.5583	0.0358	1.5941		4,790.6370	4,790.6370	0.2110		4,795.0670
Total	**10.8609**	**2.1319**	**17.9192**	**0.0669**	**5.8785**	**0.0850**	**5.9635**	**1.5583**	**0.0821**	**1.6404**		**5,518.1787**	**5,518.1787**	**0.2253**	**0.0133**	**5,527.0439**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2018	6/18/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0268	1.5251	17.3415	0.0632	5.8785	0.0387	5.9172	1.5583	0.0358	1.5941		4,790.6370	4,790.6370	0.2110		4,795.0670
Unmitigated	1.0268	1.5251	17.3415	0.0632	5.8785	0.0387	5.9172	1.5583	0.0358	1.5941		4,790.6370	4,790.6370	0.2110		4,795.0670

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	466.13	466.13	466.13	2,816,556	2,816,556
Parking Lot	0.00	0.00	0.00		
Total	466.13	466.13	466.13	2,816,556	2,816,556

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	16.60	0.00	0.00	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
NaturalGas Unmitigated	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Industrial Park	6182.87	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0667**	**0.6062**	**0.5092**	**3.6400e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**		**727.3970**	**727.3970**	**0.0139**	**0.0133**	**731.8238**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	6.18287	0.0667	0.6062	0.5092	3.6400e-003		0.0461	0.0461		0.0461	0.0461		727.3970	727.3970	0.0139	0.0133	731.8238
Total		**0.0667**	**0.6062**	**0.5092**	**3.6400e-003**		**0.0461**	**0.0461**		**0.0461**	**0.0461**		**727.3970**	**727.3970**	**0.0139**	**0.0133**	**731.8238**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Unmitigated	9.7674	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**9.7674**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.1649					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5400e-003	6.4000e-004	0.0685	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		0.1447	0.1447	4.0000e-004		0.1531
Total	**9.7674**	**6.4000e-004**	**0.0685**	**1.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**		**0.1447**	**0.1447**	**4.0000e-004**		**0.1531**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

APPENDIX 3.2:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

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Area Designations
for
National Ambient Air Quality Standards

CARBON MONOXIDE

Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

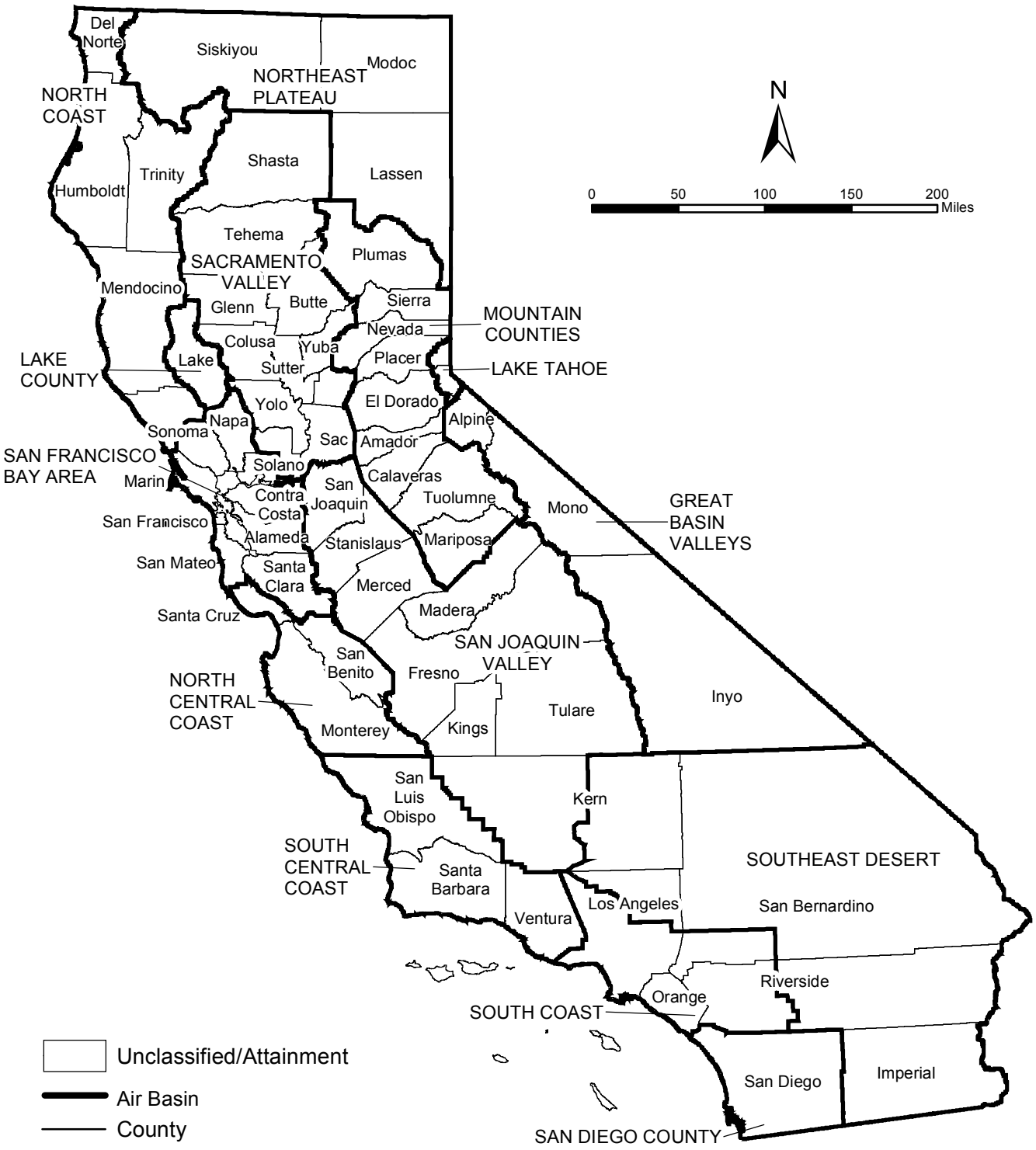
Area Designations
for
National Ambient Air Quality Standards

LEAD

Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

Area Designations
for
National Ambient Air Quality Standards

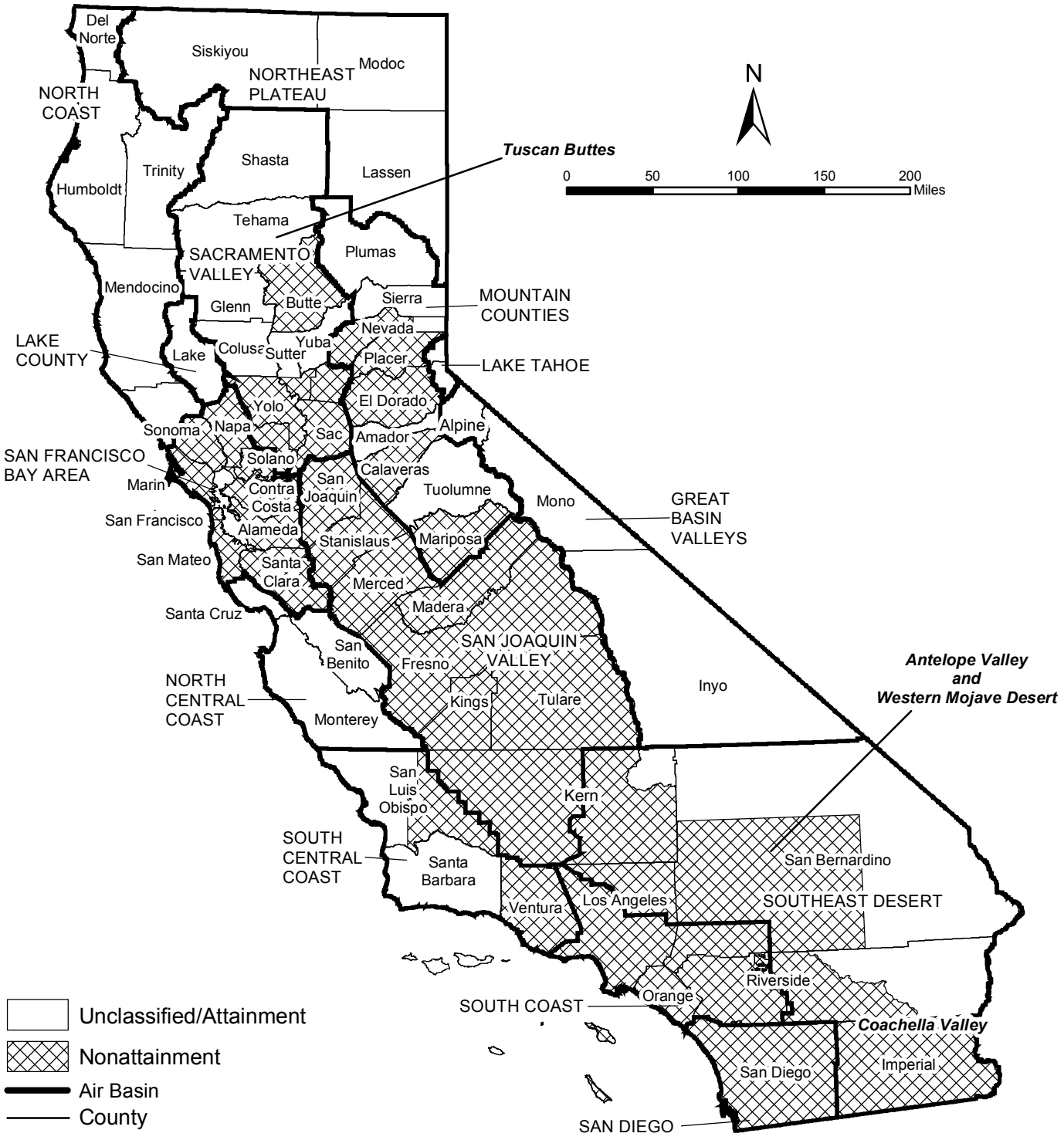
NITROGEN DIOXIDE



Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

Area Designations
for
National Ambient Air Quality Standards

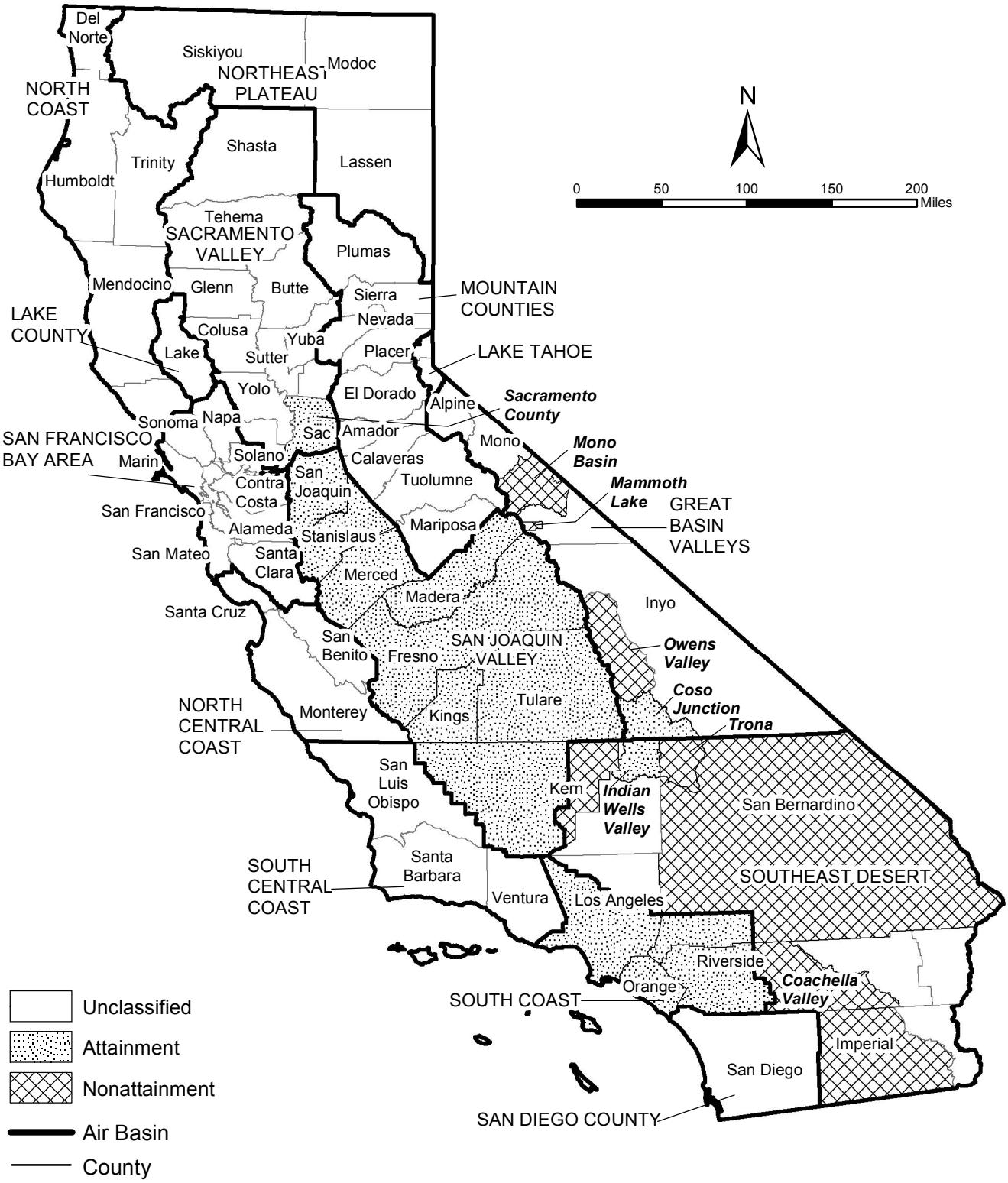
8-HOUR OZONE



Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

Area Designations
for
National Ambient Air Quality Standards

PM10



Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

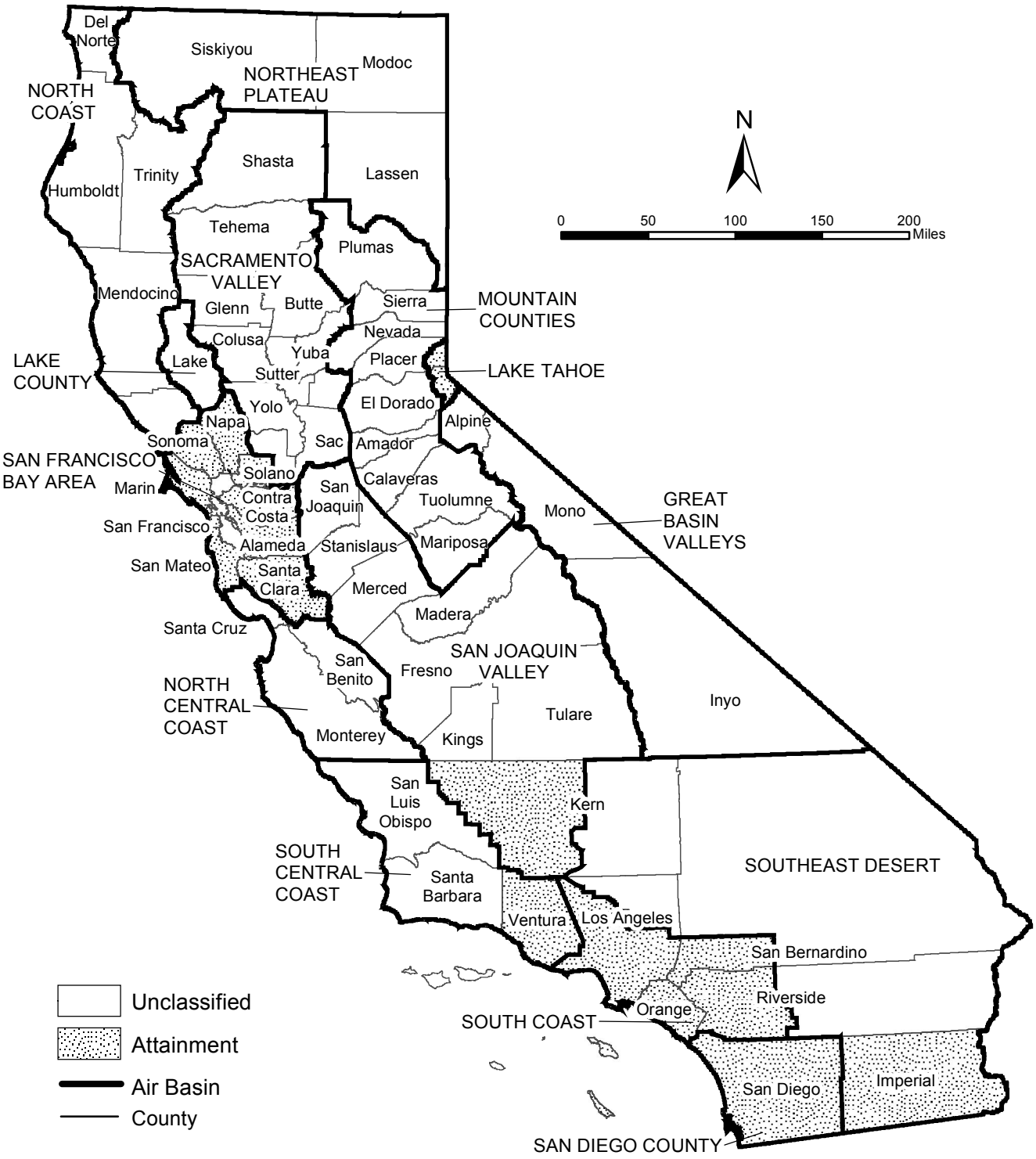
Area Designations
for
National Ambient Air Quality Standards

PM2.5

Last Reviewed: December 2015
Air Quality Planning Branch, AQPSD, CARB

Area Designations
for
National Ambient Air Quality Standards

SULFUR DIOXIDE



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Air Quality Planning Branch, AQPSD, CARB

Area Designations
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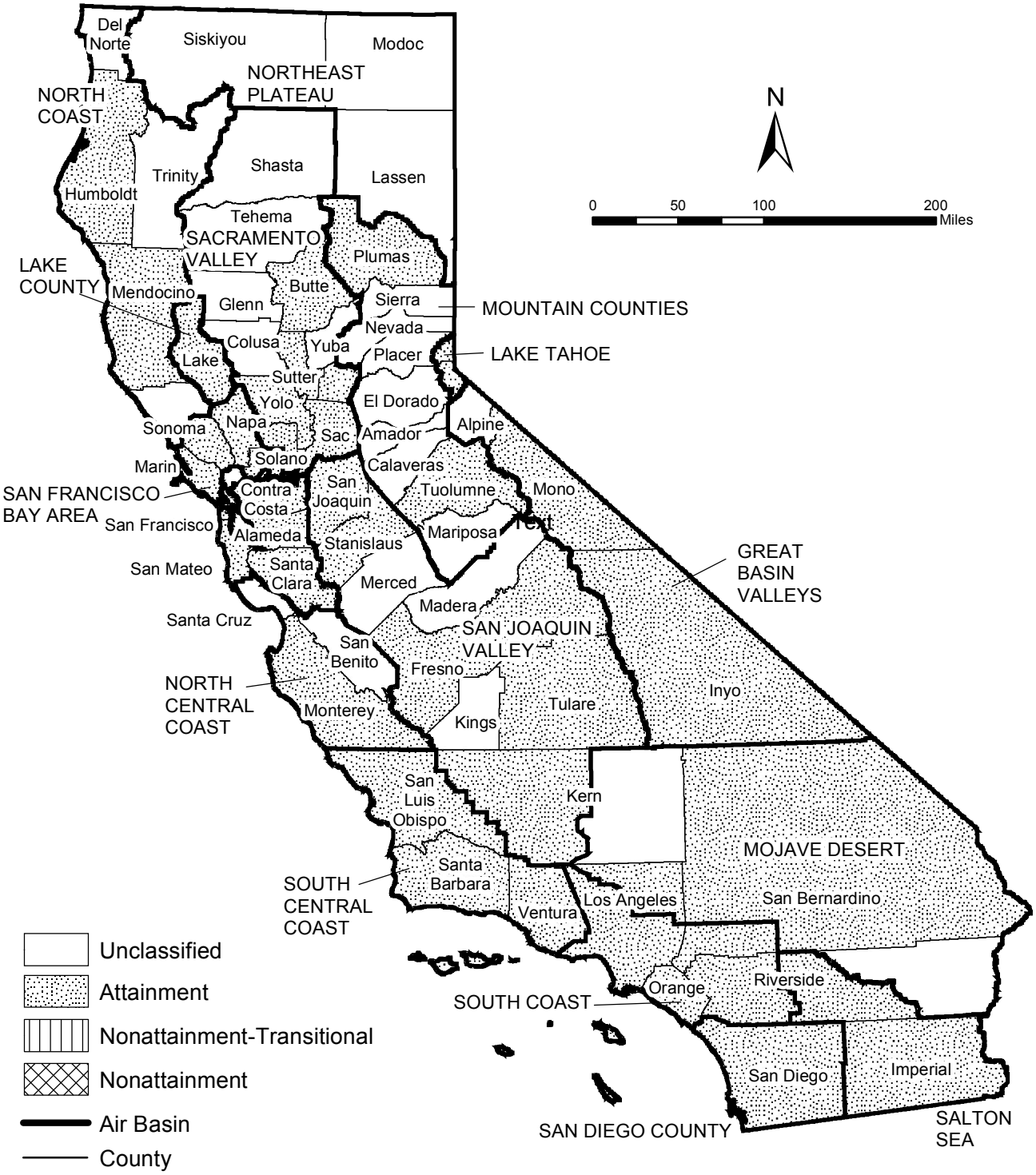

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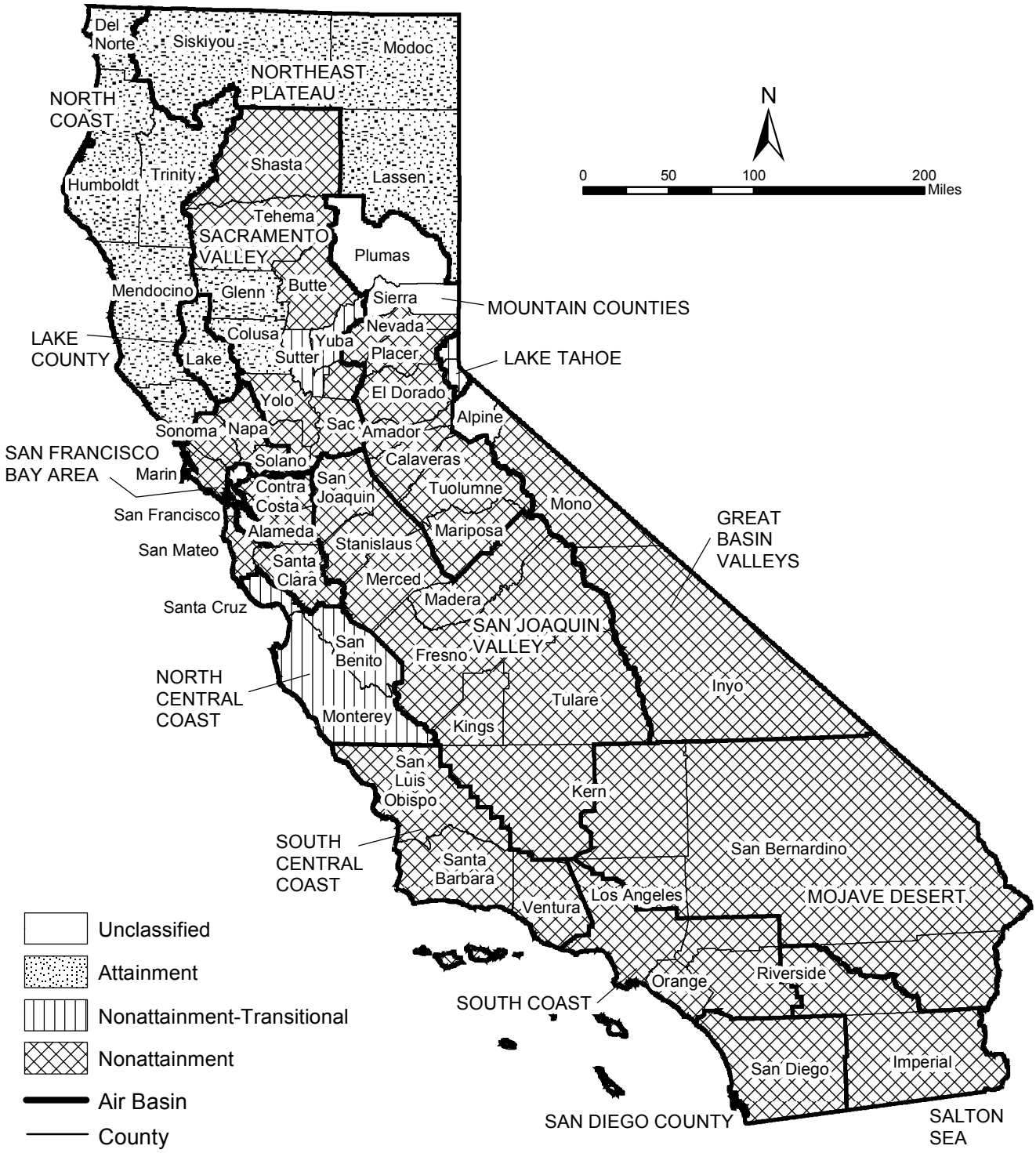

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PM10

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Air Quality Planning Branch, AQPSD

Appendix B – HRA Report

Echelon Avenue Commercial Park

DIESEL HEALTH RISK ASSESSMENT

CITY OF INDUSTRY

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JUNE 9, 2016

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LIST OF ABBREVIATED TERMS

(1)	Reference
µg	Microgram
AERMOD	Atmospheric Dispersion Modeling System
APS	Auxiliary Power System
AQMD	Air Quality Management District
ARB	Air Resources Board
CEQA	California Environmental Quality Act
CPF	Cancer Potency Factor
DPM	Diesel Particulate Matter
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
HHD	Heavy Heavy-Duty
HI	Hazard Index
HRA	Health Risk Assessment
LHD	Light Heavy-Duty
MATES	Multiple Air Toxics Exposure Study
MEIR	Maximally Exposed Individual Receptor
MEISC	Maximally Exposed Individual School Child
MEIW	Maximally Exposed Individual Worker
MHD	Medium Heavy-Duty
NAD	North American Datum
OEHHA	Office of Environmental Health Hazard
PCE	Passenger Car Equivalent
PM10	Particulate Matter 10 microns in diameter or less
Project	Echelon Avenue Commercial Park
REL	Reference Exposure Level
RM	Recommended Measures
SCAQMD	South Coast Air Quality Management District
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
URF	Unit Risk Factor
UTM	Universal Transverse Mercator
VMT	Vehicle Miles Traveled

EXECUTIVE SUMMARY

This report evaluated the potential mobile source health risk impacts to sensitive receptors (residents and schools) and adjacent workers associated with the development of the proposed Project, more specifically, health risk impacts as a result of exposure to diesel particulate matter (DPM) as a result of heavy-duty diesel trucks accessing the site. This section summarizes the findings of this report.

The results of the health risk assessment of lifetime cancer risk from Project-generated DPM emissions are provided in Table ES-1 for the Project for the residential, worker, and school child exposure scenarios.

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residence located immediately adjacent to the east of the Project site at a distance of approximately 50 feet. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 1.56 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located immediately adjacent to the north of the Project site just north of Loukelton Street. At the maximally exposed worker (MEIW), the maximum incremental cancer risk impact at this location is 0.09 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0003, which would not exceed the applicable threshold of 1.0.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions are located at the Willian Workman High School immediately adjacent to the south of the Project site. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact at both locations is 0.11 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0005, which would not exceed the applicable threshold of 1.0.

Cumulative Exposure:

The results of the analysis also indicate that the project will not result in a cumulatively considerable impact. Section 2.7 contains a detailed cumulative analysis for the Project.

TABLE ES-1: SUMMARY OF RISK ATTRIBUTABLE TO THE PROJECT

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
70 Year Exposure (2018 to 2087)	Maximum Exposed Sensitive Receptor	1.56	10	NO
40 Year Exposure (2018 to 2057)	Maximum Exposed Worker Receptor	0.09	10	NO
9 Year Exposure (2018 to 2026)	Maximum Exposed School Child	0.11	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
70 Year Exposure (2018 to 2087)	Maximum Exposed Sensitive Receptor	0.001	1.0	NO
40 Year Exposure (2018 to 2057)	Maximum Exposed Worker Receptor	0.0003	1.0	NO
9 Year Exposure (2018 to 2026)	Maximum Exposed School Child	0.0005	1.0	NO

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1 INTRODUCTION

This report presents the results of the Health Risk Assessment (HRA) prepared for the proposed Echelon Avenue Commercial Park ("Project") located at the southwest corner of Echelon Avenue and Loukelton Street in the City of Industry as shown on Exhibit 1-A.

The South Coast Air Quality Management District (SCAQMD) typically issues a comment letter on the Notice of Preparation of a CEQA Document. Per the SCAQMD's typical comment letter, if a proposed Project is expected to generate/attract diesel trucks, which emit diesel particulate matter (DPM), preparation of a HRA is necessary. This document serves to meet the SCAQMD's request for preparation of an HRA. The mobile source HRA has been prepared in accordance with the document Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (1). Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of 10 persons per million as the maximum acceptable incremental cancer risk due to DPM exposure. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulative impact. The 10 in one million standard is a very health-protective significance threshold. A risk level of 10 in one million implies a likelihood that up to 10 persons, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these air toxics. To put this risk in perspective, sample causes of death in the United States as well as the estimated risk of developing cancer from the Project or in the South Coast Air Basin are shown on Table 1-1. As an example, the risk of dying from accidental drowning is 1,000 in a million which is 100 times more than the SCAQMD's threshold of 10 in one million, the nearest comparison to 10 in one million is the 7 in one million lifetime chance that an individual would be struck by lightning.

The AQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (2). In this report the AQMD clearly states (Page D-3):

"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance

EXHIBIT 1-A: PRELIMINARY SITE PLAN

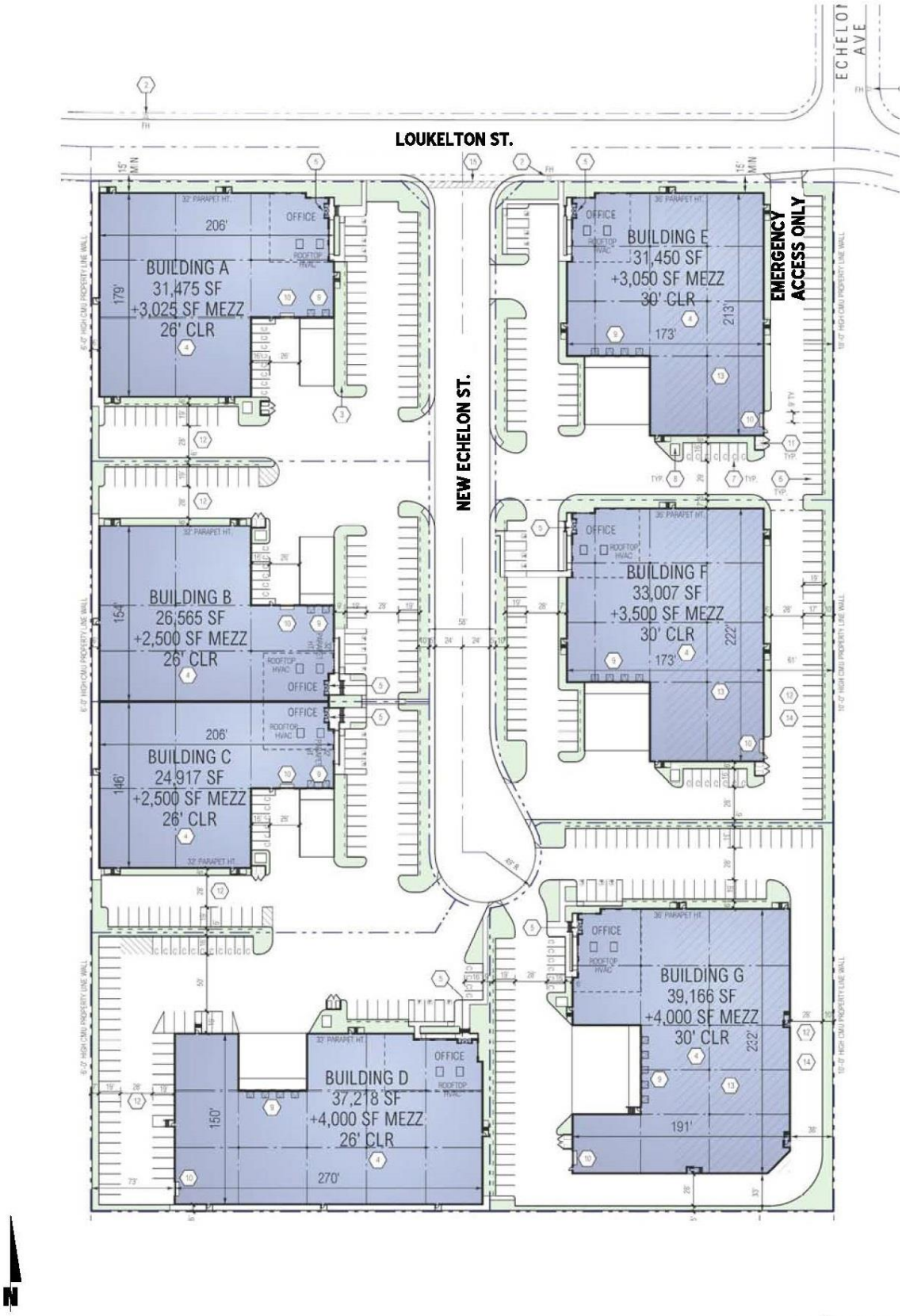
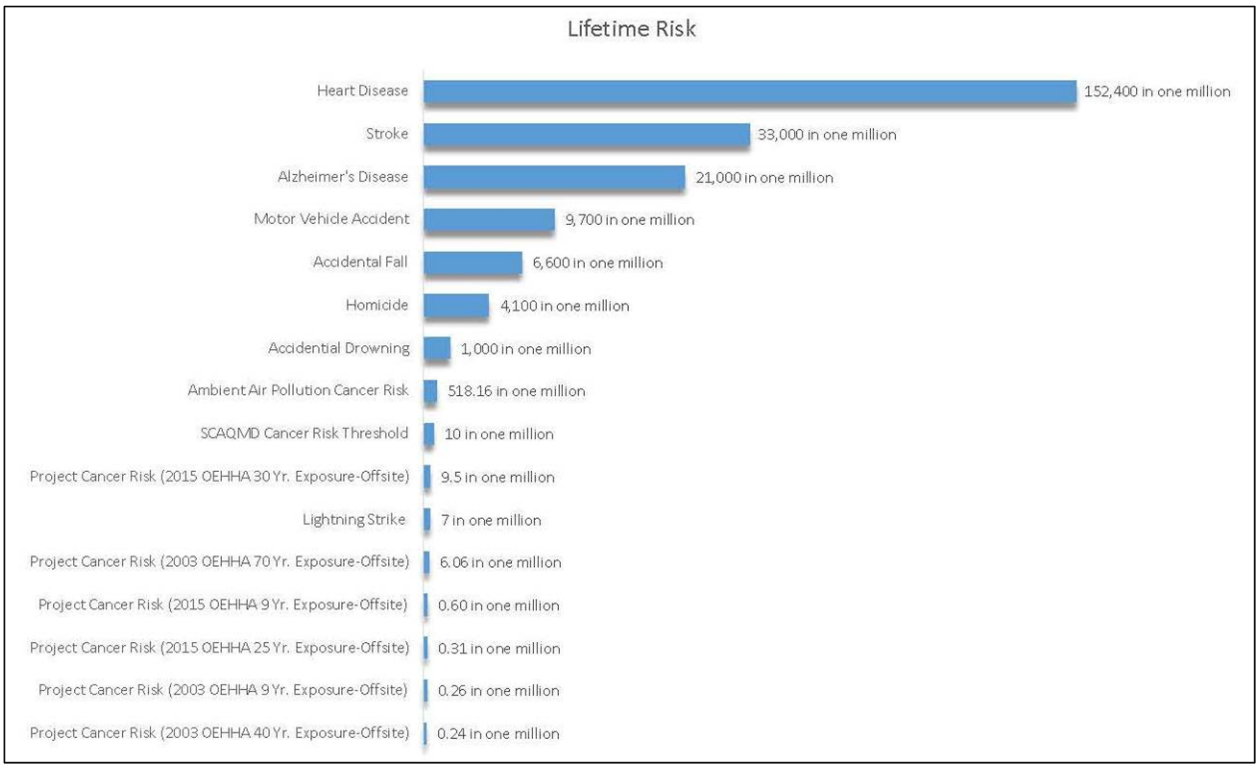


TABLE 1-1: LIFETIME RISK COMPARISON



thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."

The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs. Non-carcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A hazard index less of than one (1.0) means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures of less than 1.0 are considered less-than-significant.

1.1 SITE LOCATION

The proposed Echelon Avenue Commercial Park site is located at the southwest corner of Echelon Avenue and Loukelton Street in the City of Industry. The Project site is bounded by residential units to the east and west, William Workman High School to the south, and industrial buildings to the north. Currently there is a single, unoccupied residence on the northeast corner of the Project site that will be demolished in order to facilitate construction of the Project.

1.2 PROJECT DESCRIPTION

It is our understanding that the Project is proposed to consist of 246,373 square feet (sf) of business park spread over seven (7) buildings. Each individual building is between 27,417 sf and 43,166 sf in size with 2-5 dock doors, indicating low truck generating users (in comparison to heavy warehouse or other industrial land uses). For the purposes of this analysis, it is assumed that the Project will be fully constructed and occupied by early 2018.

2 BACKGROUND

2.1 EXISTING CONDITIONS TOXIC AIR CONTAMINANTS

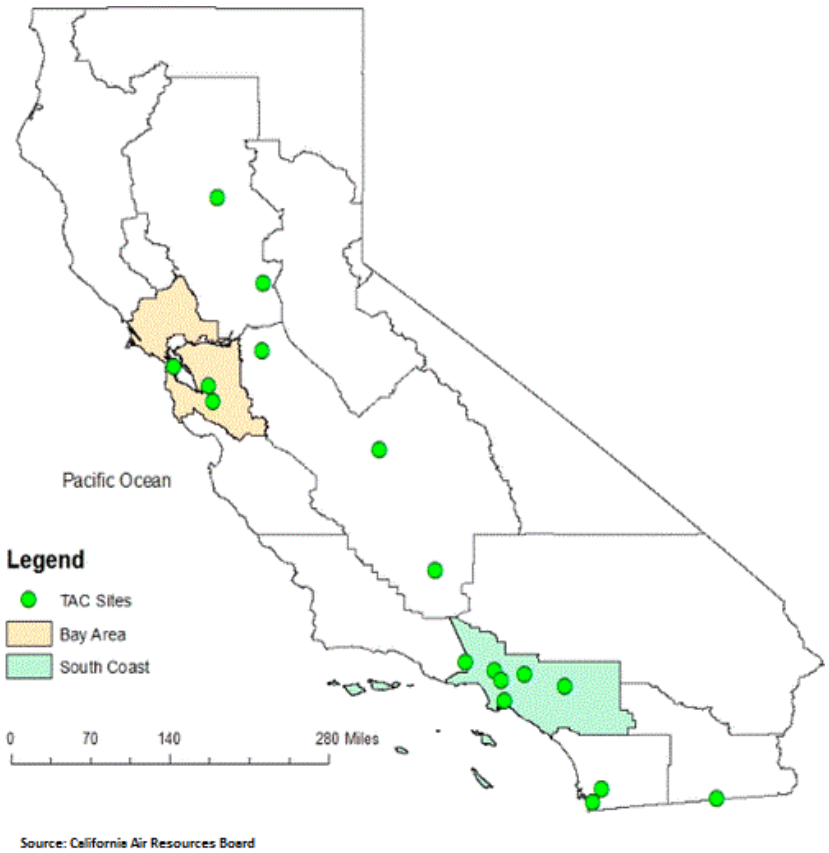
TOXIC AIR CONTAMINANTS (TACS) TRENDS

In 1984, as a result of public concern for exposure to airborne carcinogens, the CARB adopted regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products.

According to the *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly (3). The seven TACs studied shown below include those that are derived from mobile sources: diesel particulate matter (DPM), benzene, and 1,3-butadiene; those that are derived from stationary sources: perchloroethylene and hexavalent chromium; and those derived from photochemical reactions of emitted VOCs: formaldehyde and acetaldehyde[1]. TACs data was gathered at monitoring sites from both the Bay Area and South Coast Air Basins, as shown on Exhibit 2-A; Several of the sites in the SCAB include Reseda, Compton, Rubidoux, Burbank, and Fontana. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

[1] It should be noted that ambient DPM concentrations are not measured directly. Rather, a surrogate method using the coefficient of haze (COH) and elemental carbon (EC) is used to estimate DPM concentrations.

EXHIBIT 2-A: CALIFORNIA TOXIC AIR CONTAMINANT SITES

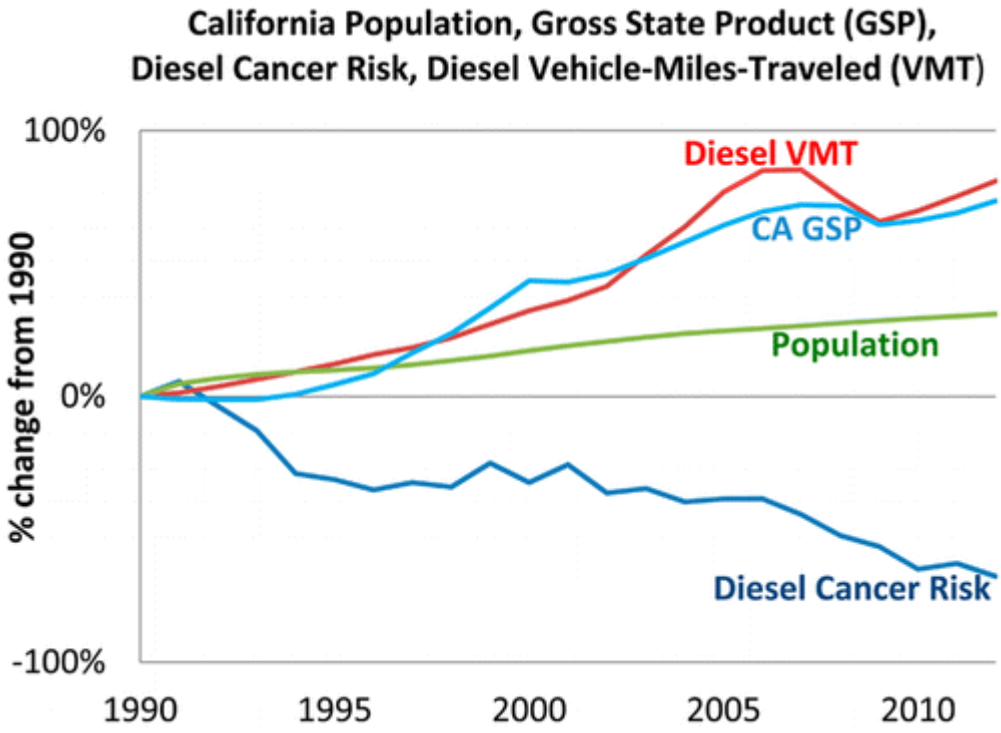


Mobile Source TACs

The CARB introduced two programs that aimed at reducing mobile emissions for light and medium duty vehicles through vehicle emissions controls and cleaner fuel. Since 1996, light-duty vehicles sold in California are equipped with California's second-generation On-Board Diagnostic (OBD-II) system as a result of about half of total car emissions stemming from emissions control device malfunctions. CARB's phase II Reformulated Gasoline (RFG-2) regulation, adopted in 1996, also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012. 1,3-Butadiene concentrations also declined 85% from 1990-2012 as a result of the motor vehicle regulations (3).

In 2000, CARB's Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68%, even though the state's population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on Exhibit 2-B. With the implementation of these diesel-related control regulations, ARB expects a DPM decline of 71% for 2000-2020.

EXHIBIT 2-B: DIESEL PARTICULATE MATTER AND DIESEL VEHICLE MILES TREND



Source: California Air Resources Board

Stationary Source TACs

Various regulations led to a decrease in perchloroethylene and hexavalent chromium, with a 92% and 86% decline, respectively. By 1993, several local air districts required dry cleaning businesses to use a carbon absorber and refrigerated condenser, as well as, dry-to-dry machines and closed-looped machines instead of vented transfer machines. Starting in 2003, California provided financial incentives for dry cleaners to use other solvents and soon after, the CARB banned the use of perchloroethylene in automotive products, aerosol coatings, and most consumer products. In 2007, CARB's dry cleaning regulation was amended to require phase-out of perchloroethylene machines by 2023, which would further reduce emissions to minimal levels (3).

Hexavalent chromium emissions began to decline in 1988 with the ARB-regulated regulations contributing to more than 97% emission reduction within four years. The various regulations include prohibiting the use of hexavalent chromium in cooling towers (1989), in motor vehicle and mobile equipment coatings (2001), and in thermal spraying operations (2005). By 2005, hexavalent chromium emissions were 99.97% less than in 1987, far exceeding expectations. In 2006, hexavalent chromium emissions were further reduced with the 2006 ARB regulation requiring add-on air pollution control devices and chemical fume suppressants.

Secondary TACs

Between 1996-2012, ambient concentrations of formaldehyde and acetaldehyde declined 22% and 21%, respectively. The decline in these TACs are attributed from increasingly stringent motor vehicle exhaust emission standards, vehicle fleet turnover, fuel reformulation, and the switch from MTBE (formaldehyde precursor) to ethanol in gasoline (3).

As previously discussed, ambient and emissions levels of TACs have reduced significantly from 1990-2012. The overall declining trend in TACs is expected to continue in California from implementation of toxic air controls.

DIESEL REGULATIONS

The CARB and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing diesel particulate matter (DPM). More specifically, the CARB Drayage Truck Regulation (4), the CARB statewide On-road Truck and Bus Regulation (5), and the Ports of Los Angeles and Long Beach "Clean Truck Program" (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet (6). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements.

Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HHDT), in terms of grams of DPM generated per mile traveled, will dramatically be reduced due to the aforementioned regulatory requirements.

Diesel emissions identified in this analysis would therefore overstate future DPM emissions since not all the regulatory requirements are reflected in the modeling.

CANCER RISK TRENDS

Based on information available from CARB, overall cancer risk throughout the basin has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment process, the State of California Air Resources Board (ARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant. The SCAQMD initiated a comprehensive urban toxic air pollution study, called MATES-II (for Multiple Air Toxics Exposure Study). MATES-II showed that average cancer risk in the SCAB ranges from 1,100 in a million to 1,750 in a million, with an average regional risk of about 1,400 in a million. Moreover, diesel particulate matter (DPM) accounts for more than 70 percent of the cancer risk.

In 2008 the SCAQMD prepared an update to the MATES-II study, referred to as MATES-III. MATES-III estimates the average excess cancer risk level from exposure to TACs is approximately 1,200 in one million basin-wide (a decrease in a regional risk by 200 in a million in comparison to the MATES-II study).

Nonetheless, the SCAQMD's most recent in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California was from the *Multiple Air Toxics*

Exposure Study in the South Coast Air Basin, MATES IV," which shows that cancer risk has decreased more than 50% between MATES III (2005) and MATES IV (2012) (7).

MATES-IV study represents the baseline health risk for a cumulative analysis. MATES-IV estimates the average excess cancer risk level from exposure to TACs is less than 400 in one million basin-wide. These model estimates were based on monitoring data collected at ten fixed sites within the South Coast Air Basin. None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES-IV modeling predicted an excess cancer risk of 873.61 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV. Cumulative Project generated TACs are limited to DPM.

2.2 EMISSIONS ESTIMATION

2.2.1 ON-SITE AND OFF-SITE TRUCK ACTIVITY

Vehicle DPM emissions were estimated using emission factors for particulate matter less than 10µm in diameter (PM_{10}) generated with the 2014 version of the Emission FACtor model (EMFAC) developed by the ARB. EMFAC 2014 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to project changes in future emissions from on-road mobile sources (8). The most recent version of this model, EMFAC 2014, incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

Further, the EMFAC 2014 user's guide states: "EMFAC2014 is the latest emissions inventory model that calculates emissions inventories for motor vehicles operating on roads in California. EMFAC2014 represents the next step forward in the ongoing improvement process for EMFAC, and reflects the ARB's current understanding of how vehicles travel and how much they pollute. The EMFAC2014 model is needed to support the Air Resources Board's regulatory and air quality planning efforts and to meet the Federal Highway Administration's transportation planning requirements."

Several distinct emission processes are included in EMFAC 2014. Emission factors calculated using EMFAC 2014 are expressed in units of grams per vehicle miles traveled (g/VMT) or grams per idle-hour (g/idle-hr), depending on the emission process. The emission processes and corresponding emission factor units associated with diesel particulate exhaust for this Project are presented in the proceeding discussion below.

For this Project, annual average PM_{10} emission factors were generated by running EMFAC 2014 in EMFAC Mode for vehicles within the South Coast Air Basin. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. The vehicle travel speeds for each segment modeled are summarized below. These are average speeds and represent conservative assumptions because lower speeds result in higher emission rates.

- Idling – on-site loading/unloading at loading docks and truck court
- 5 miles per hour – on-site vehicle movement including driving and maneuvering
- 25 miles per hour – off-site vehicle movement including driving and maneuvering.

The average PM10 emission factors for each type of vehicle were calculated based on the annual average emission factors from different model years for various exposure periods associated with assumptions for evaluating exposure to different receptor populations (e.g., sensitive, offsite worker and resident, respectively):

1) 70-year exposure: 2018 through 2087 (Residential Exposure Scenario)
2) 40-year exposure: 2018 through 2057 (Worker Exposure Scenario)

3) 9-yr exposure: 2018 through 2026 (School Child Exposure Scenario)

Calculated emission factors for each of these scenarios are shown in Table 2-1. The emission factors for model years beyond 2050 were assumed to be the same as emission factors in 2050 due to the fact that EMFAC 2014 only contains emission factors for the model year from 2000 through 2050. This is a conservative measure as it assumes no fleet turnover or cleaner technology with lower emissions could be incorporated after 2050.

The vehicle DPM exhaust emissions were calculated for running exhaust emissions. The running exhaust emissions were calculated by applying the running exhaust PM10 emission factor (g/VMT) from EMFAC over the total distance traveled. The following equation was used to estimate off-site emissions for each of the different vehicle classes comprising the mobile sources (8):

$Emissions_{speedA}$ (g/s) = $EF_{RunExhaust}$ (g/VMT) * Distance (VMT/trip) * Number of Trips (trips/day) / seconds per day

Where:

$Emissions_{speedA}$ (g/s): Vehicle emissions at a given speed A;

$EF_{RunExhaust}$ (g/VMT): EMFAC running exhaust PM_{10} emission factor at speed A;

Distance (VMT/trip): Total distance traveled per trip.

Similar to off-site traffic, on-site vehicle running emissions were calculated by applying the running exhaust PM_{10} emission factor (g/VMT) from EMFAC and the total vehicle trip number over the length of the driving path using the same formula presented above for on-site emissions. In addition, on-site vehicle idling exhaust emissions were calculated by applying the idle exhaust PM_{10} emission factor (g/idle-hr) from EMFAC and the total truck trip over the total idle time (15 minutes). The following equation was used to estimate the on-site vehicle idling emissions for each of the different vehicle classes (8):

$Emissions_{idle}$ (g/s) = EF_{idle} (g/hr) * Number of Trips (trips/day) * Idling Time (min/trip) *

60 minutes per hour / seconds per day

Where:

$Emissions_{idle}$ (g/s): Vehicle emissions during idling;

EF_{idle} (g/s): EMFAC idle exhaust PM_{10} emission factor.

TABLE 2-1: WEIGHTED AVERAGE DPM EMISSIONS FACTORS

2018-2087 – 70 Year Residential Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.23273 (g/idle-hr)
5	0.02173 (g/s)
25	0.01038 (g/s)
2018-2057 – 40 Year Worker Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.27024 (g/idle-hr)
5	0.02943 (g/s)
25	0.01300 (g/s)
2018-2026 – 9 Year School Child Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.40525 (g/idle-hr)
5	0.06704 (g/s)
25	0.02606 (g/s)

Each roadway was modeled as a line source (made up of multiple adjacent volume sources). Due to the large number of volume sources modeled for this analysis, the corresponding coordinates of each volume source have not been included in this report, but are included in Appendix 2.1. The DPM emission rate for each volume source was calculated by multiplying the emission factor (based on the average travel speed along the roadway) by the number of trips and the distance traveled along each roadway segment and dividing the result by the number of volume sources along that roadway, as illustrated on Tables 2-2 through 2-7. The modeled emission sources are illustrated on Exhibit 2-C. The modeled truck travel routes included in the HRA are based on the truck trip distributions (inbound and outbound) available from the Project's Traffic Impact Analysis (TIA) (9). The modeled truck route is consistent with the trip distribution patterns identified in the Project's traffic study is supported by substantial evidence and was modeled to determine the potential impacts to sensitive receptors along the primary truck routes. The modeling domain is limited to the Project's primary truck route and includes off-site sources in the study area for approximately 0.3 mile. This modeling domain is consistent with and more conservative than using only a 0.25 mile modeling domain which is supported by substantial evidence since several studies have shown that the greatest potential risks occur within a 0.25 mile of the primary source of emissions (in the case of the Project this is the on-site idling, travel, and on-site equipment), additional detail on the justification for the modeling domain can be found in Section 2.8 of this report.

EXHIBIT 2-C: MODELED EMISSION SOURCES

On-site truck idling was estimated to occur as trucks enter and travel through the facility. Although the Project is required to comply with CARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions should be estimated for 15 minutes of truck idling (10), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc. As such, this analysis estimated truck idling at 15 minutes, consistent with SCAQMD's recommendation.

Trip characteristics available from the report, Echelon Avenue Commerce Park Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (11). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the health risk assessment, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., light, medium, and heavy trucks) were used in the analysis. For analytical purposes the 109 daily two-way truck trips (actual vehicles) are considered in this analysis.

The vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project is comprised of approximately 81% passenger cars and approximately 19% total trucks. For analysis purposes 53.16% of all trucks are assumed to be Light-Heavy-Duty (LHD), 4.7% of all trucks are assumed to be Medium-Heavy-Duty (MHD), and 42.14% of all trucks are assumed to be Heavy-Heavy-Duty (HHD).

The model offers additional flexibility by allowing the user to assign an initial release height and vertical dispersion parameters for mobile sources representative of a roadway. On-site idling, on-site travel, and off-site travel was modeled as adjacent volume sources. According to the AERMOD user's guide, the initial horizontal standard deviation (σy) of individual volume sources should be estimated as the distance between adjacent volume sources divided by 2.15. In a similar manner, the AERMOD user guide specifies that the source initial vertical standard deviation (σz) for a surface-based source should be estimated as the height of the source divided by a factor of 2.15 (12). The release height of 4 meters was assumed for the diesel trucks, consistent with the methodology used in the Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach prepared by CARB in April 2006, and the vertical (sigma z) dispersion parameter of 1.86 meters was utilized in the AERMOD model (13).

2.3 EXPOSURE QUANTIFICATION

CARB estimates that the average Californian is exposed to 1.2-1.8 $\mu g/m^3$ of DPM annually, this exposure results in an average cancer risk of 360-540 in one million for the average Californian exposed to DPM (14).

As noted above, this HRA is based on SCAQMD guidelines to produce conservative estimates of risk posed by exposure to DPM. The conservative nature of this analysis is due primarily to the following factors:

The CARB-adopted diesel exhaust Unit Risk Factor (URF) of 300 in one million per µg/m3 is based upon the upper 95 percentile of estimated risk for each of the epidemiological studies utilized to develop the URF. Therefore the risk factor is already representative of the conservative risk posed by DPM.

The risk estimates assume sensitive receptors will be subject to DPM for 24 hours a day, 350 days a year. As a conservative measure, the SCAQMD does not recognize indoor adjustments for residents. However, the typical person spends the majority of their time indoors versus remaining outdoors for 24 hours a day, 350 days a year.[2]

The emissions derived assume that every truck accessing the project site will idle for 15 minutes under the unmitigated scenario, this is an overestimation of actual idling times and thus conservative.[3]

The analysis herein has been conducted in accordance with the guidelines in the Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (1). SCAQMD recommends using the Environmental Protection Agency's (U.S. EPA's) AERMOD model. For purposes of this analysis, the model was used to calculate annual average particulate concentrations associated with site operations.

SCAQMD required model parameters are presented in Table 2-2 (12). The model requires additional input parameters including emission data and local meteorology. Meteorological data from the SCAQMD's Pico Rivera monitoring station (SRA 11) located approximately 7.6 miles west of the Project site was used to represent local weather conditions and prevailing winds (15).

TABLE 2-2: AERMOD MODEL PARAMETERS

Dispersion Coefficient (Urban/Rural)	Urban
Terrain (Flat/Elevated)	Elevated (Regulatory Default)
Averaging Time	1 year (5-year Meteorological Data Set)
Receptor Height	0 meters (Regulatory Default)

Universal Transverse Mercator (UTM) coordinates for North American Datum (NAD) 83 were used to locate the project boundaries, each volume source location, and receptor locations in

[2] In May, 1991 the California Air Resources Board (CARB) Research Division in association with the University of California, Berkeley published research findings entitled: *Activity Patterns of California Residents*. The findings of that study indicate that on average, adults and adolescents in California spent almost 15 hours per day inside their homes, and six hours in other indoor locations, for a total of 21 hours (87% of the day). About 2 hours per day were spent in transit, and just over 1 hour per day was spent in outdoor locations.

[3] Although the Project is required to comply with CARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions should be estimated for 15 minutes of truck idling (personal communication, phone call, with James Koizumi, May 6, 2009), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc.

the project vicinity. The AERMOD dispersion model summary output files for the proposed facility are presented in Appendix 2.1.

Modeled sensitive receptors were placed at discrete residential and non-residential locations for the applicable residential and non-residential scenarios. Additionally, based on recommendations from SCAQMD staff, a receptor grid with 100-meter spacing was placed at residential, worker, and school locations in order to ensure that the maximum impacts are properly analyzed.

Receptors were placed at applicable structure locations for residential, worker, and school property and not the necessarily the boundaries of these uses. It should be noted that the primary purpose of receptor placement is focused on long-term exposure. For example, the HRA evaluates the potential health risks to residential, worker, and school children over a period of 70, 40, and 9 years of exposure respectively. As such, it is within reason and appropriate to assume that a resident, worker, or school child would be exposed over a long-period of time for 12 or 24-hours per day at the structure they reside, work, or attend school in.

Furthermore, worker receptors immediately adjacent to the Project site have been evaluated in the HRA. Any impacts to workers located at schools and other worker locations located further away from the Project site and the modeled worker receptors would be less than what has already been disclosed in the HRA.

Discrete variants for daily breathing rates, exposure frequency, and exposure duration were obtained from relevant distribution profiles presented in the OEHHA guidance document entitled Air Toxic Hot Spots Program Risk Assessment Guidelines, Part IV: Technical Support Document for Exposure Assessment and Stochastic Analysis (16) and guidance from SCAQMD. Table 2-3 summarizes the Exposure Parameters for Residents, Offsite Worker, and School Children. Appendix 2.2 includes the detailed d risk calculation and Appendix 2.3 includes the emissions outputs. (17)

TABLE 2-3: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK

Exposure Parameter	Units	Residential	Worker	School Child [a]
Exposure Frequency	days/year	350	245	180
Exposure Duration	years	70	40	9
Inhalation Rate [b]	L/kg-day	302	149	581
Exposure Duration	Years	70	40	9
Exposure Time	hours/day	24	12	10

[a] To represent the unique characteristics of the school-based population, the assessment employed the U.S. Environmental Protection Agency's guidance to develop viable dose estimates based on reasonable maximum exposures (RME). RME's are defined as the "highest exposure that is reasonably expected to occur" for a given receptor population. As a result, lifetime risk values for the student population were adjusted to account for an exposure duration of 180 days per year for nine (9) years. The 9 year exposure duration is also consistent with OEHHA Recommendations and consistent with the exposure duration utilized in school-based risk assessments for various schools within the Los Angeles County Unified School District (LAUSD) that have been accepted by the SCAQMD.

[b] The residential breathing rate of 302 L/kg-day represents the 80th percentile breathing rate per ARB and consistent with SCAQMD Risk Assessment Procedures for Rules 1401 and 212, the worker breathing rate of 149 L/kg-day is also consistent with SCAQMD Risk Assessment Procedures for Rules 1401 and 212, the school child breathing rate of 581 L/kg-day represents the high end 95th percentile breathing rate.

2.4 CARCINOGENIC CHEMICAL RISK

The SCAQMD CEQA Air Quality Handbook (1993) states that emissions of toxic air contaminants (TACs) are considered significant if a HRA shows an increased risk of greater than 10 in one million. Based on guidance from the SCAQMD in the document Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis ((1), for purposes of this analysis, 10 in one million is used as the cancer risk threshold for the proposed Project.

Excess cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics.

Guidance from CARB and the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) recommends a refinement to the standard point estimate approach when alternate human body weights and breathing rates are utilized to assess risk for susceptible subpopulations such as children. For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose. Once determined, contaminant dose is multiplied by the cancer potency factor (CPF) in units of inverse dose expressed in milligrams per kilogram per day (mg/kg/day)-1 to derive the cancer risk estimate. Therefore, to assess exposures, the following dose algorithm was utilized.

$$DOSEair = (Cair \times [BR/BW] \times A \times EF) \times (1 \times 10^{-6})$$

Where:

DOSEair = chronic daily intake (mg/kg/day)

Cair = concentration of contaminant in air (ug/m3)

[BR/BW] = daily breathing rate normalized to body weight (L/kg BW-day)

A = inhalation absorption factor

EF = exposure frequency (days/365 days)

BW = body weight (kg)

1×10^{-6} = conversion factors (ug to mg, L to m3)

$$RISKair = DOSEair \times CPF \times ED/AT$$

Where:

DOSEair	=	chronic daily intake (mg/kg/day)
CPF	=	cancer potency factor
ED	=	number of years within particular age group
AT	=	averaging time

2015 OEHHA GUIDELINES

It should be noted that there has been a wide variety of debate on how the 2015 OEHHA Guidelines will be applied to CEQA projects. The OEHHA guidelines are geared toward addressing AB 2588 air toxic hotspot requirements, specifically. Notwithstanding that, the U.S. EPA has said that the age sensitivity factors (ASFs), should only be applied to pollutants that elicit a primary mutagenic mode of action. None of the Project's pollutants elicit a primary mutagenic mode of action.

A review of relevant guidance was conducted to determine applicability of the use of early life exposure adjustments to identified carcinogens. For risk assessments conducted under the auspices of The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB2588), OEHHA applies specific adjustment factors to all carcinogens regardless of purported mechanism of action. However, the study relied upon U.S. EPA guidance relating to the use of early life exposure adjustment factors (*Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens*, EPA/630/R-003F) whereby adjustment factors are only considered when carcinogens act "through the mutagenic mode of action." A mutagen is a physical or chemical agent that changes genetic material, such as DNA, increasing the frequency of mutations to produce carcinogenic effects. The use of adjustment factors is recommended to account for the susceptibility of producing adverse health effects during early life stages from exposure to these mutagenic compounds. None of the carcinogens considered in the study for this project elicit a mutagenic mode of action and, therefore, the use of age specific adjustment factors is not warranted. The study correctly used a lifetime exposure adjustment factor of 1.0.

By way of background, the Air Toxics "Hot Spots" Information and Assessment Act requires stationary sources (facilities) to report the type and quantity of substances they routinely release into the air. The regulation requires that toxic air emissions from facilities be quantified and compiled into an inventory according to criteria and guidelines developed by CARB, that each facility be prioritized to determine whether a risk assessment is conducted, that risk assessments be conducted according to methods developed by OEHHA and that the public be notified of significant risks. Please note that OEHHA clarifies its risk assessment's applicability by stating that "(r)oadways are not part of the Hot Spots program because the program only addresses stationary sources."

It should be noted that neither the South Coast Air Quality Management District (SCAQMD) nor any other air agency in the Southern California region has adopted guidance on the applicability/use of ASFs under CEQA.

At the June 5, 2015 SCAQMD Board Meeting, the SCAQMD adopted the 2015 OEHHA guidelines for use in their permitting process. Notwithstanding, the SCAQMD acknowledged in their response to comments received on the revised permitting rules[4] that:

> "The Proposed Amended Rules are separate from the CEQA significance thresholds. The SCAQMD staff is currently evaluating how to implement the Revised OEHHA Guidelines under CEQA. The SCAQMD staff will evaluate a variety of options on how to evaluate health risks under the Revised OEHHA Guidelines under CEQA. The SCAQMD staff will conduct public workshops to gather input before bringing recommendations to the Governing Board. In the interim, staff will continue to use the previous guidelines for CEQA determinations."

Further at a June 18, 2015 Association of Environmental Professionals Meeting, the SCAQMD staff (Ms. Jillian Wong, Ph.D.) stated that any new guidance regarding ASFs under CEQA for projects where SCAQMD is not the lead agency, will go through a public process. At this time, no such process has commenced and no formal guidance has been adopted.

Lastly, even the SCAQMD is in the process of evaluating how the Revised OEHHA Guidelines will be applied to CEQA projects under their jurisdiction. SJVAPCD has similarly released a report that suggests that thresholds be revised to address the 2015OEHHA Guidelines. Given that there is no available guidance that has been adopted by the local air district and the fact that the Project does not emit any pollutants that elicit a primary mutagenic mode of action, the use of the 2015 OEHHA guidelines would not be appropriate.

2.5 NON-CARCINOGENIC EXPOSURES

An evaluation of the potential noncarcinogenic effects of chronic exposures was also conducted. Adverse health effects are evaluated by comparing a compound's annual concentration with its toxicity factor or Reference Exposure Level (REL). The REL for diesel particulates was obtained from OEHHA for this analysis. The chronic reference exposure level (REL) for DPM was established by OEHHA as 5 $\mu g/m^3$ (OEHHA Toxicity Criteria Database, http://www.oehha.org/risk/chemicaldb/index.asp).

The non-cancer hazard index was calculated (consistent with SCAQMD methodology) as follows:

The relationship for the non-cancer health effects of DPM is given by the following equation:

$$HI_{DPM} = C_{DPM}/REL_{DPM}$$

Where:

HI_{DPM} = Hazard Index; an expression of the potential for non-cancer health effects.

[4] See Response to Comment #13, Page A-7 and A-8 of the June 5, 2015 board meeting Agenda No. 28

C_{DPM} = Annual average DPM concentration (µg/m^3).

REL_{DPM} = Reference exposure level (REL) for DPM; the DPM concentration at which no adverse health effects are anticipated.

2.6 POTENTIAL PROJECT-RELATED DPM SOURCE CANCER AND NON-CANCER RISKS[5]

Project-related DPM-source cancer and non-cancer risks for residential, worker, and school child exposure scenarios for the Project are considered herein and are summarized as follows.

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residence located immediately adjacent to the east of the Project site at a distance of approximately 50 feet. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 1.56 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0. Exhibit 2-D illustrates the nearest modeled residential receptors.

Worker Exposure Scenario:

It should be noted that SCAQMD guidance does not require assessment of the potential health risk to on-site workers; additionally assessment of health risk to on-site workers is not required by OEHHA HRA guidelines. As such, for purposes of this analysis, risk to on-site workers has not been evaluated.

Potential risk to on-site workers is not required to be addressed through the typical health risk assessment process employed by SCAQMD and OEHHA. Further, the California Air Pollution Control Officers Association (CAPCOA) in their 2009 report titled: Health Risk Assessments for Proposed Land Use Projects, indicates that on-site receptors should only be included in health risk assessments if they are persons not employed by the project and if they would remain on-site for long periods of time (e.g., a caretaker residence that would reside there for most of the day and could be there for 24 hours per day for an extended period of time). Persons not employed by the project would not remain on-site for any significant period. Therefore, a health risk assessment for on-site workers is not required or recommended.

The following excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) /

5 SCAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) / CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

"If a facility must also comply with RCRA/CERCLA HRA requirements, health effects to on-site workers may also need to be addressed. The DTSC's Remedial Project Manager should be consulted on this issue. In some cases it may be appropriate to evaluate risks to on-site receptors. The district should be consulted about special cases for which evaluation of on-site receptors is appropriate, such as facilities frequented by the public or where people may reside (e.g., military facilities)."

"On-site workers are protected by CAL OSHA and do not have to be evaluated under the Hot Spots program, unless the worker also lives on the facility site, or property. Occasionally, facilities like prisons, military bases, and universities have worker housing within the facility. In these situations the evaluation of on-site cancer risks, and/or acute and chronic non-cancer hazard indices is appropriate under the Hot Spots program."

Since none of the previous scenarios apply to the project, risk to on-site workers has not been evaluated in this analysis.

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located immediately adjacent to the north of the Project site just north of Loukelton Street. At the maximally exposed worker (MEIW), the maximum incremental cancer risk impact at this location is 0.09 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0003, which would not exceed the applicable threshold of 1.0. Exhibit 2-E illustrates the nearest modeled worker receptors.

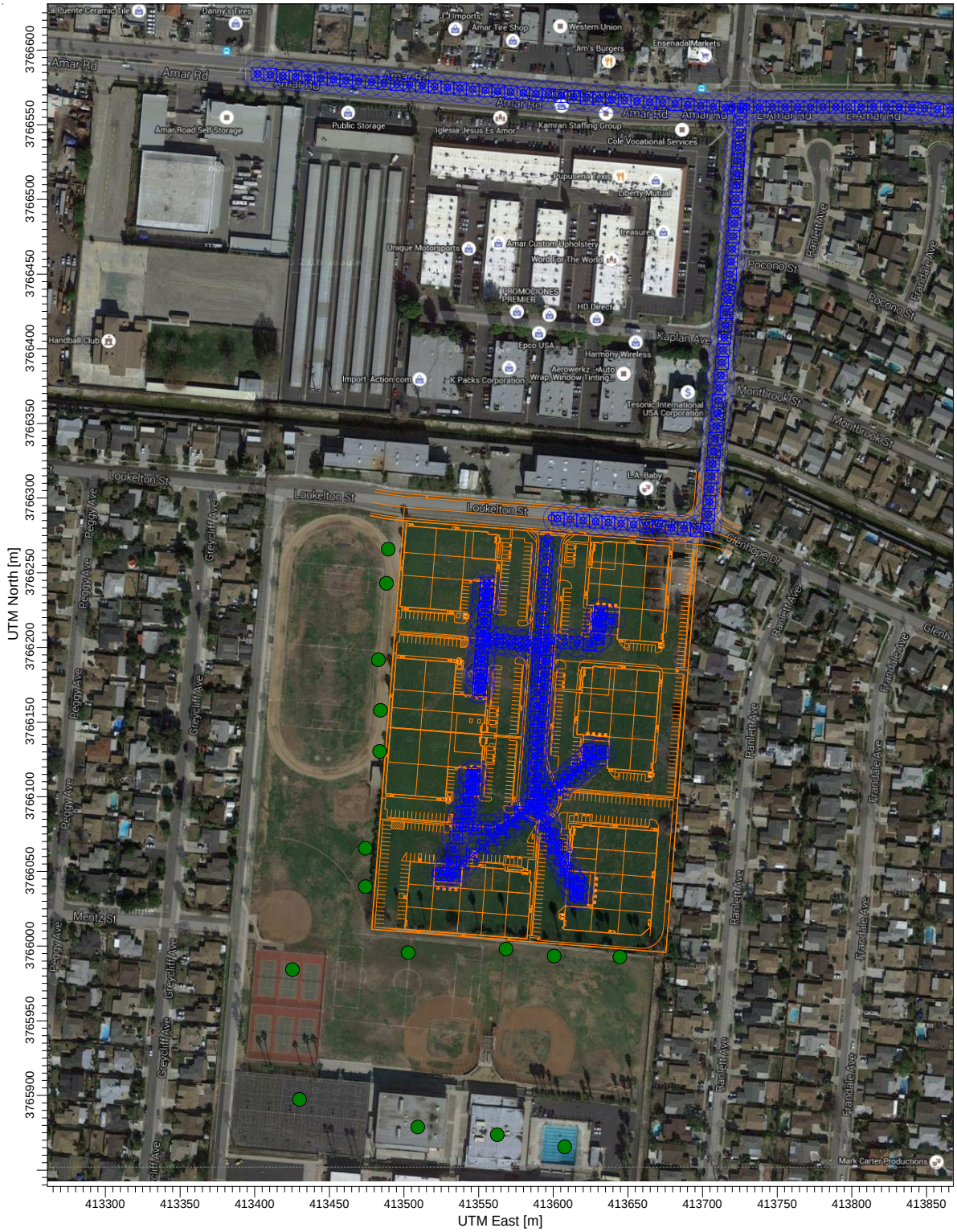
School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions are located at the Willian Workman High School immediately adjacent to the south of the Project site. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact at both locations is 0.11 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0005, which would not exceed the applicable threshold of 1.0. Exhibit 2-F illustrates the nearest modeled school receptors

EXHIBIT 2-D: NEAREST MODELED RESIDENTIAL RECEPTORS

EXHIBIT 2-E: NEAREST MODELED WORKER RECEPTORS

EXHIBIT 2-F: NEAREST MODELED SCHOOL CHILD RECEPTORS



2.7 CUMULATIVE TOXIC AIR CONTAMINANTS (TAC) EMISSIONS IMPACTS

2.7.1 EXISTING CONDITIONS FOR TOXIC EMISSIONS

There are no state or federal ambient air quality standards applicable to TAC emissions. Preparing a cumulative assessment for TACs is complicated by the fact that site-specific impacts can be far different from average impacts over a larger geographic area. Impacts from TAC emissions are highest closest to sources of TACs, but the sources are often spread over a large area. For example, emissions from diesel engines, the largest source of risk from TACs, are operated on roads, businesses, and construction sites throughout the air basin. Locations where large numbers of TAC sources are concentrated such as freeways, rail yards, and ports may pose a higher level of risk to sensitive receptors near these facilities. Examination of the risk from TACs at national, state, regional, and local levels is useful for providing context, but site-specific evaluation is ultimately necessary to determine existing conditions for development projects.

2.7.2 AMBIENT TAC IMPACTS PRESUMED CUMULATIVELY SIGNIFICANT

The SCAQMD has conducted an in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California. This study, the *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES IV,"* shows that cancer risk has decreased more than 50% between MATES III (2005) and MATES IV (2012). This is a result of uniform CEQA review, low-sulfur diesel fuel regulations, new fleets coming on line, and the imposition of clean truck access rules at the Ports of Long Beach and Los Angeles.

MATES-IV is the most comprehensive dataset documenting the ambient air toxic levels and health risks associated with the South Coast Air Basin emissions. Therefore, MATES-IV study represents the baseline health risk for a cumulative analysis. MATES-IV estimates the average excess cancer risk level from exposure to TACs is approximately 400 in one million basin-wide. These model estimates were based on monitoring data collected at 10 fixed sites within the South Coast Air Basin. None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES-IV modeling predicted an excess cancer risk of 873.61 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV.

The SCAQMD has established a significance threshold for incremental project-level TAC impacts. Specifically, if a given project would generate TACs resulting in or causing an increase in cancer risks of 10 or more incidents per million population, that project's incremental cancer risk would be considered significant. This same significance threshold (10 in one million) is applied by SCAQMD in determining whether a given project's incremental contribution to ambient TAC-source cancer risks is cumulatively considerable. The SCAQMD has not however established a significance threshold for ambient cumulative TAC impacts affecting the Basin. Likewise, the Lead Agency has no adopted cumulative TAC impacts significance threshold.

Absent an established threshold for cumulative TAC impacts, the following discussion assesses whether, in the light of other available existing information, the ambient cumulative TAC-source impacts affecting the Basin and the area encompassing the Project site could be characterized as significant.

As noted previously, *MATES-IV* estimates the average ambient cumulative TAC-source cancer risk for the Basin at 400 incidents per million population; in the localized area encompassing the Project site, the risk is estimated at 873.61 incidents per million population. Either of these existing cumulative TAC-source cancer risk levels (400 per million, or 873.61 per million) far exceeds the 10 in one million cancer risk at which project-level TAC-source cancer risks would be determined significant employing SCAQMD thresholds.

Comparing the ambient cumulative TAC-source cancer risk (873.61 per million locally, or 400 per million Basin-wide) to the SCAQMD's established threshold for project-level TAC-source cancer risks (10 in one million), the ambient cumulative TAC-source cancer risk is approximately 40 to 60 times greater than the incremental risk at which project-level TAC-source cancer risks would be considered significant.

Although there is not yet an established significance threshold for ambient cumulative TAC impacts, given the magnitude by which the ambient cumulative condition exceeds SCAQMD's established project-level significance threshold (ambient cumulative TAC conditions are 40 to 60 times greater than the project-level threshold), the ambient cumulative condition would likely exceed whatever significance threshold may be established for cumulative impacts affecting the Basin. On this basis, and absent a prevailing threshold adopted by the Lead or Responsible Agency, ambient cumulative TAC impacts are presumed to be significant.

2.7.3 JUSTIFICATION OF THE GEOGRAPHIC SCOPE OF THE ANALYSIS

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on ARB and South Coast District emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is estimated at approximately 1,000 feet from a distribution center (18).

The 1,000-foot evaluation distance is supported by research-based findings concerning TAC emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources.

For assessing the cumulative impacts of a new source of TAC emissions associated with a project in combination with existing sources and probable future sources, a project radius is necessary. Assessment of impacts from existing sources within 1,000 feet of the new source in combination with risks and hazards from the new source is recommended. Then, once the location of the maximally impacted receptor is identified for the project, cumulative impacts from other sources within the radius of the project (i.e., not the receptor) are assessed at that

location. Assessments should sum individual hazards or risks to find the cumulative impact at the location of the maximally impacted receptor from the new source.

Lastly, the Waters Bill (AB 3205) (H&SC Section, 42301.6 through 42301.9) (19) addresses sources of hazardous air pollutants near schools and further evidences the propriety of considering hazardous emissions sources within a defined 1,000 foot radius . That is, pursuant to the Waters Bill, prior to approving an application for a permit to construct or modify a source which emits hazardous air emissions, which source is located within 1,000 feet from the outer boundary of a school site, the air pollution control officer shall prepare a public notice in which the proposed project or modification for which the application for a permit is made is fully described.

For purposes of this assessment, a one-quarter mile radius or 1,320 feet geographic scope is utilized for determining potential cumulative impacts. This radius is more robust than, and provides a more health protective scenario for evaluation than the 1,000 feet buffer identified above.

2.7.4 Related Projects Contribution to Cumulative TAC Impacts

In addition to the MATES-IV cumulative TAC-source cancer risk noted above, other new or proposed potential TAC-generating projects (related projects) in the Study Area could contribute to cumulative TAC impacts. These related projects, due to their recent and/or tentative nature, are not reflected in the cumulative TAC impacts identified in the MATES-IV study.

In consultation with the Lead Agency, related TAC-generating projects located within a one-quarter mile radius of the Project were identified and are reflected in this cumulative TAC analysis. Of the cumulative projects identified in the Project's traffic study, none have the potential to emit TACs and are located within a quarter-mile buffer of the Project site and primary truck route.

Consistent with Section 15130(b) of the CEQA Guidelines a list of past, present, and probable future projects producing related or cumulative impacts have been identified. The Project's traffic study (11) identified cumulative projects in the study area. As discussed above, for analytical purposes related to TACs the geographic scope of this analysis is focused on an approximate one-quarter mile or 1,320 feet radius from the Project site and the primary truck routes.

Notwithstanding, since specific risk estimates for each of the related projects is not available, in the abundance of caution, related projects (in sum) are assumed to generate >10 in one million cumulative cancer risk.

It should be noted that stationary (loading dock) and mobile source emissions from these cumulative projects and from future development on currently undeveloped or underdeveloped parcels within a quarter-mile radius and projects beyond a quarter-mile radius

that add mobile sources to the same roadway segments as the proposed Project's truck route, have the potential to contribute to the overall cumulative risk in the Project vicinity.

2.7.5 PROJECT MAXIMUM CONTRIBUTION TO CUMULATIVE TAC IMPACTS

Project-source TACs would incrementally increase the background cancer risk by a maximum of 1.56 incidents per million population. The applicable SCAQMD significance threshold for Project-level TAC-source cancer risk impacts is 10 incidents per million population. Similarly, SCAQMD significance thresholds state that Project contributions to cumulative TAC-source cancer risks would be cumulatively considerable if greater than 10 incidents per million population would occur. The 1.56 incidents per million population increment resulting from the Project is therefore not significant, nor cumulatively considerable.

2.7.6 CUMULATIVE IMPACTS

The Project's contribution is less than cumulatively considerable because it is less than the 10 in one million incremental cancer risk threshold established by the SCAQMD. Lastly, it should be noted that although there will be ambient growth in the Project vicinity, any increase in emissions and consequently cancer risk from ambient growth would be offset by the expected decrease in future risk estimates due to the natural turnover of older fleets and equipment being replaced by more efficient, less polluting engines and regulatory actions being phased in. It should be noted that stationary (loading dock), mobile source emissions, and other TACs from these cumulative projects and from future development on currently undeveloped or underdeveloped parcels within a quarter-mile radius and projects beyond a quarter-mile radius that add mobile sources to the same roadway segments as the proposed Project's truck route, have the potential to contribute to the overall cumulative risk in the Project vicinity. Nonetheless, the Project's cumulative impact is considered to be less than significant.

As noted above at Section 2.8.5, the Project's maximum contribution to cumulative TAC Impacts would not be cumulatively considerable. For informational and disclosure purposes, cumulative TAC impacts are further defined for each potential exposure scenario (residential, worker and school child) and are summarized below and on Table 2-4.

Residential Exposure Scenario:

The greatest cumulative with Project cancer risk is 885.17 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 1.56 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Residential Exposure impacts would not be cumulatively considerable.

Worker Exposure Scenario:

The greatest cumulative with Project cancer risk is 883.7 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.09 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore

considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Worker Exposure impacts would not be cumulatively considerable.

School Child Exposure Scenario:

The greatest cumulative with Project cancer risk is 883.72 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.11 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore less than cumulatively considerable. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's School Child Exposure impacts would not be cumulatively considerable.

2.7.7 SUMMARY AND CONCLUSIONS

To provide context for, and quantify cumulative TAC effects within the Study Area, the Project TAC-source cancer risk, and the TAC-source cancer risks from the related projects identified herein, were added to the total background risk derived by the MATES IV study, yielding a maximum potential cumulative TAC-source risk affecting the Study Area. As indicated at Table 2-4, the maximum potential cumulative cancer risk within the Study Area is estimated at 598.4 in one million.

The MATES-IV ambient cumulative TAC impact represents approximately 99 percent of the total cumulative impact identified at Table 2-4; and due to its magnitude when compared to project-level TAC impact significance thresholds, is presumed to be cumulatively significant. The Project would incrementally contribute to this presumably significant cumulative impact. However the Project's maximum incremental contribution of 1.56 incidents per million population does not exceed the established SCAQMD threshold (10 incidents per million population) at which project-level TAC contributions would be determined cumulatively considerable. On this basis, the Project TAC emissions impacts are not considered cumulatively considerable.

TABLE 2-4: STUDY AREA CUMULATIVE CANCER RISK [6]

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Background*	Related Projects TACs	Project TACs	Maximum Cumulative Risk
Maximum Impact to All Receptors Without Project	873.61	>10		>873.61
Maximum Impact to Nearest Residential With Project	873.61	>10	1.56	>885.17
Maximum Impact to Nearest Worker With Project	873.61	>10	0.09	>883.7
Maximum Impact to Nearest School With Project	873.61	>10	0.11	>883.72
	*Source: **MATES IV Carcinogenic Risk Interactive Map** (SCAQMD 2015).			

6 Although cumulative impacts typically represent a General Plan Buildout Scenario, there is no such data available for what General Plan Buildout DPM emissions impacts would be. The background risk, however, would likely overstate, rather than understate future DPM impacts and is assumed to be inclusive of future growth. It should be noted that due to improved DPM emissions control technologies and increasingly stringent DPM emissions regulations, the cancer risk incidence in the seven (7) years between the Mates III and Mates IV studies declined by approximately 50% even as population and business growth occurred throughout the region. Similar future declines in area-wide DPM source emissions are anticipated pursuant to enactment of further emissions regulations.

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4 CERTIFICATION

The contents of this health risk assessment represent an accurate depiction of the impacts to sensitive receptors associated with the proposed Echelon Avenue Commercial Park Project. The information contained in this health risk assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 2.1:

AERMOD MODEL INPUT/OUTPUT

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 6/3/2016
** File: C:\Lakes\AERMOD View\Echelon\Echelon.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Echelon\Echelon.isc
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 9862049
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Echelon.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Building A On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001049
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413555.837, 3766243.730, 100.06, 0.00, 3.95
** 413555.037, 3766226.136, 106.41, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000278     VOLUME   413555.644 3766239.484 100.26
   LOCATION L0000279     VOLUME   413555.258 3766230.993 100.87
** End of LINE VOLUME Source ID = SLINE1
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC Building B On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
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** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413551.415, 3766167.645, 106.15, 0.00, 3.95
** 413552.125, 3766185.565, 106.26, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000280     VOLUME   413551.583 3766171.892 105.06
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   LOCATION L0000281     VOLUME   413551.920 3766180.385 104.46
** End of LINE VOLUME Source ID = SLINE2
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** DESCRSRC Building C On-Site Idling
** PREFIX
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** Configuration = Adjacent
** Emission Rate = 0.00001077
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 413545.850, 3766100.633, 105.73, 0.00, 3.95
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   LOCATION L0000282     VOLUME   413547.062 3766113.966 106.20
   LOCATION L0000283     VOLUME   413546.292 3766105.501 106.19
** End of LINE VOLUME Source ID = SLINE3
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC Building G On-Site Idling
** PREFIX
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** Configuration = Adjacent
** Emission Rate = 0.00001077
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 413617.515, 3766028.262, 102.22, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0000284     VOLUME   413618.727 3766041.595 106.04
   LOCATION L0000285     VOLUME   413617.957 3766033.130 105.57
** End of LINE VOLUME Source ID = SLINE7
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** DESCRSRC Building D On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001077
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 413538.424, 3766046.639, 101.67, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0000286     VOLUME   413525.125 3766048.155 105.14
   LOCATION L0000287     VOLUME   413533.570 3766047.192 105.19
** End of LINE VOLUME Source ID = SLINE4
** ----------------------------------------------------------------------
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** LINE VOLUME Source ID = SLINE5
** DESCRSRC Building E On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001077
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413626.458, 3766219.150, 106.56, 0.00, 3.95
** 413643.980, 3766217.152, 106.47, 0.00, 3.95
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                                                        Echelon
   LOCATION L0000288     VOLUME   413630.681 3766218.668 100.96
   LOCATION L0000289     VOLUME   413639.126 3766217.705 100.85
** End of LINE VOLUME Source ID = SLINE5
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC Building F On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
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** Vertical Dimension = 4.00
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** Nodes = 2
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** 413637.625, 3766129.601, 106.75, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0000290     VOLUME   413624.326 3766131.117 106.90
   LOCATION L0000291     VOLUME   413632.771 3766130.154 106.85
** End of LINE VOLUME Source ID = SLINE6
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 9.277E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 21
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** 413592.033, 3766201.823, 106.63, 0.00, 3.95
** 413552.806, 3766205.881, 106.36, 0.00, 3.95
** 413555.512, 3766243.079, 100.06, 0.00, 3.95
** 413550.101, 3766169.359, 106.14, 0.00, 3.95
** 413552.806, 3766205.205, 106.36, 0.00, 3.95
** 413590.680, 3766200.470, 106.63, 0.00, 3.95
** 413586.622, 3766094.964, 106.56, 0.00, 3.95
** 413563.627, 3766078.732, 106.21, 0.00, 3.95
** 413541.309, 3766079.409, 105.88, 0.00, 3.95
** 413547.396, 3766118.635, 105.62, 0.00, 3.95
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** 413628.554, 3766201.823, 106.62, 0.00, 3.95
** 413632.612, 3766227.523, 106.53, 0.00, 3.95
** 413629.231, 3766201.147, 106.62, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0000292     VOLUME   413595.851 3766269.270 99.14
   LOCATION L0000293     VOLUME   413595.370 3766260.783 99.16
   LOCATION L0000294     VOLUME   413594.890 3766252.297 99.19
   LOCATION L0000295     VOLUME   413594.410 3766243.811 99.46
   LOCATION L0000296     VOLUME   413593.929 3766235.324 100.16
   LOCATION L0000297     VOLUME   413593.449 3766226.838 100.86
   LOCATION L0000298     VOLUME   413592.968 3766218.351 101.56
   LOCATION L0000299     VOLUME   413592.488 3766209.865 102.26
   LOCATION L0000300     VOLUME   413591.590 3766201.869 102.91
   LOCATION L0000301     VOLUME   413583.135 3766202.743 102.85
   LOCATION L0000302     VOLUME   413574.680 3766203.618 102.79
   LOCATION L0000303     VOLUME   413566.226 3766204.493 102.74
   LOCATION L0000304     VOLUME   413557.771 3766205.367 102.69
   LOCATION L0000305     VOLUME   413553.061 3766209.381 102.42
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					Echelon
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LOCATION	L0000307	VOLUME	413554.294	3766226.336	101.21
LOCATION	L0000308	VOLUME	413554.910	3766234.813	100.60
LOCATION	L0000309	VOLUME	413555.496	3766242.866	100.03
LOCATION	L0000310	VOLUME	413554.874	3766234.389	100.63
LOCATION	L0000311	VOLUME	413554.252	3766225.912	101.24
LOCATION	L0000312	VOLUME	413553.629	3766217.435	101.85
LOCATION	L0000313	VOLUME	413553.007	3766208.957	102.45
LOCATION	L0000314	VOLUME	413552.385	3766200.480	103.05
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LOCATION	L0000316	VOLUME	413551.141	3766183.526	104.24
LOCATION	L0000317	VOLUME	413550.518	3766175.049	104.83
LOCATION	L0000318	VOLUME	413550.311	3766172.147	105.03
LOCATION	L0000319	VOLUME	413550.951	3766180.623	104.44
LOCATION	L0000320	VOLUME	413551.591	3766189.099	103.85
LOCATION	L0000321	VOLUME	413552.230	3766197.575	103.25
LOCATION	L0000322	VOLUME	413553.648	3766205.099	102.72
LOCATION	L0000323	VOLUME	413562.083	3766204.045	102.78
LOCATION	L0000324	VOLUME	413570.517	3766202.991	102.85
LOCATION	L0000325	VOLUME	413578.951	3766201.936	102.92
LOCATION	L0000326	VOLUME	413587.386	3766200.882	102.99
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LOCATION	L0000329	VOLUME	413589.828	3766178.307	104.82
LOCATION	L0000330	VOLUME	413589.501	3766169.813	105.51
LOCATION	L0000331	VOLUME	413589.174	3766161.319	106.19
LOCATION	L0000332	VOLUME	413588.848	3766152.826	106.73
LOCATION	L0000333	VOLUME	413588.521	3766144.332	106.73
LOCATION	L0000334	VOLUME	413588.194	3766135.838	106.73
LOCATION	L0000335	VOLUME	413587.868	3766127.345	106.72
LOCATION	L0000336	VOLUME	413587.541	3766118.851	106.72
LOCATION	L0000337	VOLUME	413587.214	3766110.357	106.72
LOCATION	L0000338	VOLUME	413586.888	3766101.863	106.71
LOCATION	L0000339	VOLUME	413585.319	3766094.044	106.70
LOCATION	L0000340	VOLUME	413578.375	3766089.142	106.61
LOCATION	L0000341	VOLUME	413571.430	3766084.240	106.52
LOCATION	L0000342	VOLUME	413564.486	3766079.338	106.43
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LOCATION	L0000344	VOLUME	413547.686	3766079.215	106.21
LOCATION	L0000345	VOLUME	413541.634	3766081.503	106.13
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LOCATION	L0000347	VOLUME	413544.241	3766098.302	106.16
LOCATION	L0000348	VOLUME	413545.544	3766106.702	106.18
LOCATION	L0000349	VOLUME	413546.847	3766115.101	106.19
LOCATION	L0000350	VOLUME	413546.108	3766113.883	106.18
LOCATION	L0000351	VOLUME	413543.884	3766105.679	106.16
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LOCATION	L0000353	VOLUME	413539.437	3766089.271	106.10
LOCATION	L0000354	VOLUME	413537.214	3766081.067	106.07
LOCATION	L0000355	VOLUME	413534.990	3766072.863	106.04
LOCATION	L0000356	VOLUME	413532.767	3766064.659	106.02
LOCATION	L0000357	VOLUME	413530.543	3766056.455	105.65
LOCATION	L0000358	VOLUME	413528.319	3766048.251	105.18
LOCATION	L0000359	VOLUME	413532.816	3766050.296	105.35
LOCATION	L0000360	VOLUME	413539.453	3766055.606	105.72
LOCATION	L0000361	VOLUME	413546.091	3766060.916	106.10
LOCATION	L0000362	VOLUME	413552.728	3766066.225	106.28
LOCATION	L0000363	VOLUME	413559.366	3766071.535	106.36
LOCATION	L0000364	VOLUME	413566.003	3766076.845	106.45
LOCATION	L0000365	VOLUME	413572.640	3766082.155	106.53
LOCATION	L0000366	VOLUME	413579.278	3766087.465	106.62
LOCATION	L0000367	VOLUME	413585.915	3766092.775	106.70
LOCATION	L0000368	VOLUME	413590.689	3766090.403	106.77
LOCATION	L0000369	VOLUME	413594.157	3766082.642	106.81
LOCATION	L0000370	VOLUME	413597.624	3766074.881	106.86
LOCATION	L0000371	VOLUME	413601.092	3766067.121	106.90
LOCATION	L0000372	VOLUME	413604.559	3766059.360	106.81

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   LOCATION L0000373     VOLUME   413608.027 3766051.600 106.43
   LOCATION L0000374     VOLUME   413611.494 3766043.839 106.06
   LOCATION L0000375     VOLUME   413614.962 3766036.079 105.69
   LOCATION L0000376     VOLUME   413615.751 3766034.490 105.61
   LOCATION L0000377     VOLUME   413612.453 3766042.324 105.99
   LOCATION L0000378     VOLUME   413609.154 3766050.158 106.37
   LOCATION L0000379     VOLUME   413605.856 3766057.992 106.75
   LOCATION L0000380     VOLUME   413602.557 3766065.826 106.92
   LOCATION L0000381     VOLUME   413599.259 3766073.660 106.88
   LOCATION L0000382     VOLUME   413595.960 3766081.494 106.84
   LOCATION L0000383     VOLUME   413592.662 3766089.328 106.79
   LOCATION L0000384     VOLUME   413591.269 3766096.701 106.77
   LOCATION L0000385     VOLUME   413597.781 3766102.163 106.86
   LOCATION L0000386     VOLUME   413604.294 3766107.625 106.94
   LOCATION L0000387     VOLUME   413610.807 3766113.088 107.00
   LOCATION L0000388     VOLUME   413617.319 3766118.550 106.98
   LOCATION L0000389     VOLUME   413623.832 3766124.012 106.93
   LOCATION L0000390     VOLUME   413630.344 3766129.474 106.87
   LOCATION L0000391     VOLUME   413626.951 3766126.759 106.91
   LOCATION L0000392     VOLUME   413620.354 3766121.399 106.96
   LOCATION L0000393     VOLUME   413613.757 3766116.039 106.99
   LOCATION L0000394     VOLUME   413607.160 3766110.679 106.98
   LOCATION L0000395     VOLUME   413600.563 3766105.319 106.89
   LOCATION L0000396     VOLUME   413593.966 3766099.959 106.81
   LOCATION L0000397     VOLUME   413588.764 3766097.288 106.74
   LOCATION L0000398     VOLUME   413589.343 3766105.768 106.75
   LOCATION L0000399     VOLUME   413589.923 3766114.249 106.75
   LOCATION L0000400     VOLUME   413590.502 3766122.729 106.76
   LOCATION L0000401     VOLUME   413591.081 3766131.209 106.77
   LOCATION L0000402     VOLUME   413591.661 3766139.689 106.77
   LOCATION L0000403     VOLUME   413592.240 3766148.170 106.78
   LOCATION L0000404     VOLUME   413592.820 3766156.650 106.61
   LOCATION L0000405     VOLUME   413593.399 3766165.130 105.92
   LOCATION L0000406     VOLUME   413593.978 3766173.610 105.23
   LOCATION L0000407     VOLUME   413594.558 3766182.091 104.54
   LOCATION L0000408     VOLUME   413595.137 3766190.571 103.84
   LOCATION L0000409     VOLUME   413595.717 3766199.051 103.14
   LOCATION L0000410     VOLUME   413599.090 3766204.278 102.70
   LOCATION L0000411     VOLUME   413607.561 3766203.572 102.75
   LOCATION L0000412     VOLUME   413616.032 3766202.866 102.67
   LOCATION L0000413     VOLUME   413624.502 3766202.161 102.56
   LOCATION L0000414     VOLUME   413629.246 3766206.203 102.10
   LOCATION L0000415     VOLUME   413630.572 3766214.599 101.33
   LOCATION L0000416     VOLUME   413631.897 3766222.995 100.55
   LOCATION L0000417     VOLUME   413632.114 3766223.640 100.48
   LOCATION L0000418     VOLUME   413631.033 3766215.209 101.26
   LOCATION L0000419     VOLUME   413629.953 3766206.778 102.04
** End of LINE VOLUME Source ID = SLINE8
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC 100% Echelon to Amar
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 3.174E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
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** 413696.610, 3766278.710, 97.66, 0.00, 3.95
** 413702.970, 3766278.710, 97.68, 0.00, 3.95
** 413721.654, 3766486.212, 105.40, 0.00, 3.95
** 413725.667, 3766563.285, 106.07, 0.00, 3.95
** ---------------------------------------------------------------------
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   LOCATION L0000421     VOLUME   413611.530 3766285.627 98.99
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                                                    Echelon
   LOCATION L0000422     VOLUME   413620.002 3766284.938 98.91
   LOCATION L0000423     VOLUME   413628.474 3766284.249 98.82
   LOCATION L0000424     VOLUME   413636.946 3766283.560 98.73
   LOCATION L0000425     VOLUME   413645.418 3766282.872 98.63
   LOCATION L0000426     VOLUME   413653.890 3766282.183 98.53
   LOCATION L0000427     VOLUME   413662.362 3766281.494 98.42
   LOCATION L0000428     VOLUME   413670.834 3766280.805 98.31
   LOCATION L0000429     VOLUME   413679.306 3766280.116 98.20
   LOCATION L0000430     VOLUME   413687.778 3766279.428 98.08
   LOCATION L0000431     VOLUME   413696.250 3766278.739 98.10
   LOCATION L0000432     VOLUME   413703.130 3766280.481 98.20
   LOCATION L0000433     VOLUME   413703.892 3766288.947 98.50
   LOCATION L0000434     VOLUME   413704.654 3766297.413 98.79
   LOCATION L0000435     VOLUME   413705.417 3766305.878 99.10
   LOCATION L0000436     VOLUME   413706.179 3766314.344 99.40
   LOCATION L0000437     VOLUME   413706.941 3766322.810 99.70
   LOCATION L0000438     VOLUME   413707.703 3766331.276 100.01
   LOCATION L0000439     VOLUME   413708.466 3766339.741 100.36
   LOCATION L0000440     VOLUME   413709.228 3766348.207 100.89
   LOCATION L0000441     VOLUME   413709.990 3766356.673 101.42
   LOCATION L0000442     VOLUME   413710.752 3766365.139 101.95
   LOCATION L0000443     VOLUME   413711.515 3766373.604 102.48
   LOCATION L0000444     VOLUME   413712.277 3766382.070 103.01
   LOCATION L0000445     VOLUME   413713.039 3766390.536 103.53
   LOCATION L0000446     VOLUME   413713.801 3766399.002 104.06
   LOCATION L0000447     VOLUME   413714.564 3766407.467 104.58
   LOCATION L0000448     VOLUME   413715.326 3766415.933 105.10
   LOCATION L0000449     VOLUME   413716.088 3766424.399 105.62
   LOCATION L0000450     VOLUME   413716.850 3766432.865 106.00
   LOCATION L0000451     VOLUME   413717.613 3766441.330 106.01
   LOCATION L0000452     VOLUME   413718.375 3766449.796 106.03
   LOCATION L0000453     VOLUME   413719.137 3766458.262 106.05
   LOCATION L0000454     VOLUME   413719.899 3766466.728 106.08
   LOCATION L0000455     VOLUME   413720.661 3766475.193 106.11
   LOCATION L0000456     VOLUME   413721.424 3766483.659 106.15
   LOCATION L0000457     VOLUME   413721.962 3766492.141 106.18
   LOCATION L0000458     VOLUME   413722.404 3766500.629 106.22
   LOCATION L0000459     VOLUME   413722.846 3766509.118 106.26
   LOCATION L0000460     VOLUME   413723.288 3766517.606 106.30
   LOCATION L0000461     VOLUME   413723.730 3766526.095 106.55
   LOCATION L0000462     VOLUME   413724.172 3766534.583 107.18
   LOCATION L0000463     VOLUME   413724.614 3766543.072 107.80
   LOCATION L0000464     VOLUME   413725.056 3766551.560 108.42
   LOCATION L0000465     VOLUME   413725.498 3766560.049 109.04
** End of LINE VOLUME Source ID = SLINE9
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC 50% Amar Rd. to/from the east
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 1.211E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 4
** 413725.565, 3766561.947, 106.07, 0.00, 3.95
** 413832.664, 3766561.947, 109.48, 0.00, 3.95
** 413889.858, 3766558.022, 110.18, 0.00, 3.95
** 414022.190, 3766544.003, 113.64, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000466     VOLUME   413729.815 3766561.947 109.27
   LOCATION L0000467     VOLUME   413738.315 3766561.947 109.47
   LOCATION L0000468     VOLUME   413746.815 3766561.947 109.67
   LOCATION L0000469     VOLUME   413755.315 3766561.947 109.86
   LOCATION L0000470     VOLUME   413763.815 3766561.947 110.06
   LOCATION L0000471     VOLUME   413772.315 3766561.947 110.18
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                                                    Echelon
   LOCATION L0000472     VOLUME   413780.815 3766561.947 110.27
   LOCATION L0000473     VOLUME   413789.315 3766561.947 110.35
   LOCATION L0000474     VOLUME   413797.815 3766561.947 110.43
   LOCATION L0000475     VOLUME   413806.315 3766561.947 110.51
   LOCATION L0000476     VOLUME   413814.815 3766561.947 110.59
   LOCATION L0000477     VOLUME   413823.315 3766561.947 110.67
   LOCATION L0000478     VOLUME   413831.815 3766561.947 110.75
   LOCATION L0000479     VOLUME   413840.297 3766561.423 110.82
   LOCATION L0000480     VOLUME   413848.777 3766560.841 110.92
   LOCATION L0000481     VOLUME   413857.257 3766560.259 111.04
   LOCATION L0000482     VOLUME   413865.737 3766559.677 111.16
   LOCATION L0000483     VOLUME   413874.217 3766559.095 111.28
   LOCATION L0000484     VOLUME   413882.697 3766558.513 111.41
   LOCATION L0000485     VOLUME   413891.173 3766557.882 111.53
   LOCATION L0000486     VOLUME   413899.626 3766556.987 111.66
   LOCATION L0000487     VOLUME   413908.079 3766556.092 111.80
   LOCATION L0000488     VOLUME   413916.531 3766555.196 111.93
   LOCATION L0000489     VOLUME   413924.984 3766554.301 112.07
   LOCATION L0000490     VOLUME   413933.437 3766553.405 112.22
   LOCATION L0000491     VOLUME   413941.889 3766552.510 112.36
   LOCATION L0000492     VOLUME   413950.342 3766551.614 112.52
   LOCATION L0000493     VOLUME   413958.795 3766550.719 112.67
   LOCATION L0000494     VOLUME   413967.248 3766549.824 112.83
   LOCATION L0000495     VOLUME   413975.700 3766548.928 112.99
   LOCATION L0000496     VOLUME   413984.153 3766548.033 113.16
   LOCATION L0000497     VOLUME   413992.606 3766547.137 113.33
   LOCATION L0000498     VOLUME   414001.058 3766546.242 113.46
   LOCATION L0000499     VOLUME   414009.511 3766545.347 113.53
   LOCATION L0000500     VOLUME   414017.964 3766544.451 113.60
** End of LINE VOLUME Source ID = SLINE10
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC 50% Amar Rd. to/from the west
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 1.314E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413719.864, 3766561.117, 105.87, 0.00, 3.95
** 413397.900, 3766584.298, 103.50, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000501     VOLUME   413715.625 3766561.422 108.91
   LOCATION L0000502     VOLUME   413707.147 3766562.032 108.75
   LOCATION L0000503     VOLUME   413698.668 3766562.643 108.61
   LOCATION L0000504     VOLUME   413690.190 3766563.253 108.46
   LOCATION L0000505     VOLUME   413681.712 3766563.864 108.38
   LOCATION L0000506     VOLUME   413673.234 3766564.474 108.31
   LOCATION L0000507     VOLUME   413664.756 3766565.084 108.24
   LOCATION L0000508     VOLUME   413656.278 3766565.695 108.17
   LOCATION L0000509     VOLUME   413647.800 3766566.305 108.10
   LOCATION L0000510     VOLUME   413639.322 3766566.916 108.03
   LOCATION L0000511     VOLUME   413630.844 3766567.526 107.97
   LOCATION L0000512     VOLUME   413622.366 3766568.137 107.91
   LOCATION L0000513     VOLUME   413613.888 3766568.747 107.85
   LOCATION L0000514     VOLUME   413605.410 3766569.357 107.66
   LOCATION L0000515     VOLUME   413596.932 3766569.968 107.44
   LOCATION L0000516     VOLUME   413588.454 3766570.578 107.21
   LOCATION L0000517     VOLUME   413579.976 3766571.189 106.97
   LOCATION L0000518     VOLUME   413571.498 3766571.799 106.73
   LOCATION L0000519     VOLUME   413563.020 3766572.410 106.47
   LOCATION L0000520     VOLUME   413554.542 3766573.020 106.21
   LOCATION L0000521     VOLUME   413546.064 3766573.630 105.94
   LOCATION L0000522     VOLUME   413537.585 3766574.241 105.66
   LOCATION L0000523     VOLUME   413529.107 3766574.851 105.43
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                                                    Echelon
   LOCATION L0000524     VOLUME   413520.629 3766575.462 105.20
   LOCATION L0000525     VOLUME   413512.151 3766576.072 104.97
   LOCATION L0000526     VOLUME   413503.673 3766576.682 104.73
   LOCATION L0000527     VOLUME   413495.195 3766577.293 104.49
   LOCATION L0000528     VOLUME   413486.717 3766577.903 104.24
   LOCATION L0000529     VOLUME   413478.239 3766578.514 103.99
   LOCATION L0000530     VOLUME   413469.761 3766579.124 103.73
   LOCATION L0000531     VOLUME   413461.283 3766579.735 103.47
   LOCATION L0000532     VOLUME   413452.805 3766580.345 103.31
   LOCATION L0000533     VOLUME   413444.327 3766580.955 103.17
   LOCATION L0000534     VOLUME   413435.849 3766581.566 103.03
   LOCATION L0000535     VOLUME   413427.371 3766582.176 102.88
   LOCATION L0000536     VOLUME   413418.893 3766582.787 102.73
   LOCATION L0000537     VOLUME   413410.415 3766583.397 102.59
   LOCATION L0000538     VOLUME   413401.937 3766584.008 102.43
** End of LINE VOLUME Source ID = SLINE11
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000278     0.000005245      0.00      3.95      1.86
   SRCPARAM L0000279     0.000005245      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0000280     0.000005385      0.00      3.95      1.86
   SRCPARAM L0000281     0.000005385      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0000282     0.000005385      0.00      3.95      1.86
   SRCPARAM L0000283     0.000005385      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0000284     0.000005385      0.00      3.95      1.86
   SRCPARAM L0000285     0.000005385      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0000286     0.000005385      0.00      3.95      1.86
   SRCPARAM L0000287     0.000005385      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0000288     0.000005385      0.00      3.95      1.86
   SRCPARAM L0000289     0.000005385      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0000290     0.000005385      0.00      3.95      1.86
   SRCPARAM L0000291     0.000005385      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0000292     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000293     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000294     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000295     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000296     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000297     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000298     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000299     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000300     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000301     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000302     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000303     0.00000007248      0.00      3.95      1.86
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   SRCPARAM L0000305     0.00000007248      0.00      3.95      1.86
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   SRCPARAM L0000307     0.00000007248      0.00      3.95      1.86
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   SRCPARAM L0000309     0.00000007248      0.00      3.95      1.86
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   SRCPARAM L0000311     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000312     0.00000007248      0.00      3.95      1.86
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				Echelon	
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SRCPARAM	L0000379	0.00000007248	0.00	3.95	1.86

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                                                        Echelon
   SRCPARAM L0000380     0.00000007248      0.00      3.95      1.86
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   SRCPARAM L0000408     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000409     0.00000007248      0.00      3.95      1.86
   SRCPARAM L0000410     0.00000007248      0.00      3.95      1.86
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** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0000420     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000421     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000422     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000423     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000424     0.000000069      0.00      3.95      1.86
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   SRCPARAM L0000426     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000427     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000428     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000429     0.000000069      0.00      3.95      1.86
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   SRCPARAM L0000432     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000433     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000434     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000435     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000436     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000437     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000438     0.000000069      0.00      3.95      1.86
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   SRCPARAM L0000440     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000441     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000442     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000443     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000444     0.000000069      0.00      3.95      1.86
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   SRCPARAM L0000445     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000446     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000447     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000448     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000449     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000450     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000451     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000452     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000453     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000454     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000455     0.000000069      0.00      3.95      1.86
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   SRCPARAM L0000457     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000458     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000459     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000460     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000461     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000462     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000463     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000464     0.000000069      0.00      3.95      1.86
   SRCPARAM L0000465     0.000000069      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0000466     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000467     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000468     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000469     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000470     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000471     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000472     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000473     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000474     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000475     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000476     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000477     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000478     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000479     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000480     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000481     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000482     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000483     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000484     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000485     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000486     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000487     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000488     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000489     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000490     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000491     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000492     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000493     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000494     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000495     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000496     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000497     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000498     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000499     0.0000000346      0.00      3.95      1.86
   SRCPARAM L0000500     0.0000000346      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0000501     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000502     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000503     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000504     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000505     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000506     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000507     0.00000003458      0.00      3.95      1.86
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                                                        Echelon
   SRCPARAM L0000508     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000509     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000510     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000511     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000512     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000513     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000514     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000515     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000516     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000517     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000518     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000519     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000520     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000521     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000522     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000523     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000524     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000525     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000526     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000527     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000528     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000529     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000530     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000531     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000532     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000533     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000534     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000535     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000536     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000537     0.00000003458      0.00      3.95      1.86
   SRCPARAM L0000538     0.00000003458      0.00      3.95      1.86
** ---------------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Echelon.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE pico8.sfc
   PROFFILE pico8.PFL
   SURFDATA 0 2008
   UAIRDATA 3190 2008
   SITEDATA 99999 2008
   PROFBASE 58.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL Echelon.AD\AN00GALL.PLT 31
```

```
   SUMMFILE Echelon.sum
OU FINISHED

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Echelon.isc                             ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:07:36

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   261 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:    261 Source(s);       1 Source Group(s); and      21 Receptor(s)

              with:      0 POINT(s), including
                         0 POINTCAP(s) and      0 POINTHOR(s)
               and:    261 VOLUME source(s)
               and:      0 AREA type source(s)
               and:      0 LINE source(s)
               and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)
```

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 58.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Detailed Error/Message File: Echelon.err

**File for Summary of Results: Echelon.sum

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\Echelon.isc *** 06/03/16
*** AERMET - VERSION 14134 *** *** *** 16:07:36

PAGE 2
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000278	0	0.52450E-05	413555.6	3766239.5	100.3	0.00	3.95	1.86	YES	
L0000279	0	0.52450E-05	413555.3	3766231.0	100.9	0.00	3.95	1.86	YES	
L0000280	0	0.53850E-05	413551.6	3766171.9	105.1	0.00	3.95	1.86	YES	
L0000281	0	0.53850E-05	413551.9	3766180.4	104.5	0.00	3.95	1.86	YES	
L0000282	0	0.53850E-05	413547.1	3766114.0	106.2	0.00	3.95	1.86	YES	
L0000283	0	0.53850E-05	413546.3	3766105.5	106.2	0.00	3.95	1.86	YES	
L0000284	0	0.53850E-05	413618.7	3766041.6	106.0	0.00	3.95	1.86	YES	
L0000285	0	0.53850E-05	413618.0	3766033.1	105.6	0.00	3.95	1.86	YES	
L0000286	0	0.53850E-05	413525.1	3766048.2	105.1	0.00	3.95	1.86	YES	
L0000287	0	0.53850E-05	413533.6	3766047.2	105.2	0.00	3.95	1.86	YES	
L0000288	0	0.53850E-05	413630.7	3766218.7	101.0	0.00	3.95	1.86	YES	
L0000289	0	0.53850E-05	413639.1	3766217.7	100.8	0.00	3.95	1.86	YES	
L0000290	0	0.53850E-05	413624.3	3766131.1	106.9	0.00	3.95	1.86	YES	
L0000291	0	0.53850E-05	413632.8	3766130.2	106.8	0.00	3.95	1.86	YES	
L0000292	0	0.72480E-07	413595.9	3766269.3	99.1	0.00	3.95	1.86	YES	
L0000293	0	0.72480E-07	413595.4	3766260.8	99.2	0.00	3.95	1.86	YES	
L0000294	0	0.72480E-07	413594.9	3766252.3	99.2	0.00	3.95	1.86	YES	
L0000295	0	0.72480E-07	413594.4	3766243.8	99.5	0.00	3.95	1.86	YES	
L0000296	0	0.72480E-07	413593.9	3766235.3	100.2	0.00	3.95	1.86	YES	
L0000297	0	0.72480E-07	413593.4	3766226.8	100.9	0.00	3.95	1.86	YES	
L0000298	0	0.72480E-07	413593.0	3766218.4	101.6	0.00	3.95	1.86	YES	
L0000299	0	0.72480E-07	413592.5	3766209.9	102.3	0.00	3.95	1.86	YES	
L0000300	0	0.72480E-07	413591.6	3766201.9	102.9	0.00	3.95	1.86	YES	
L0000301	0	0.72480E-07	413583.1	3766202.7	102.8	0.00	3.95	1.86	YES	
L0000302	0	0.72480E-07	413574.7	3766203.6	102.8	0.00	3.95	1.86	YES	
L0000303	0	0.72480E-07	413566.2	3766204.5	102.7	0.00	3.95	1.86	YES	
L0000304	0	0.72480E-07	413557.8	3766205.4	102.7	0.00	3.95	1.86	YES	
L0000305	0	0.72480E-07	413553.1	3766209.4	102.4	0.00	3.95	1.86	YES	
L0000306	0	0.72480E-07	413553.7	3766217.9	101.8	0.00	3.95	1.86	YES	
L0000307	0	0.72480E-07	413554.3	3766226.3	101.2	0.00	3.95	1.86	YES	
L0000308	0	0.72480E-07	413554.9	3766234.8	100.6	0.00	3.95	1.86	YES	
L0000309	0	0.72480E-07	413555.5	3766242.9	100.0	0.00	3.95	1.86	YES	
L0000310	0	0.72480E-07	413554.9	3766234.4	100.6	0.00	3.95	1.86	YES	
L0000311	0	0.72480E-07	413554.3	3766225.9	101.2	0.00	3.95	1.86	YES	

L0000312	0	0.72480E-07	413553.6	3766217.4	101.8	0.00	3.95	1.86	YES
L0000313	0	0.72480E-07	413553.0	3766209.0	102.5	0.00	3.95	1.86	YES
L0000314	0	0.72480E-07	413552.4	3766200.5	103.0	0.00	3.95	1.86	YES
L0000315	0	0.72480E-07	413551.8	3766192.0	103.6	0.00	3.95	1.86	YES
L0000316	0	0.72480E-07	413551.1	3766183.5	104.2	0.00	3.95	1.86	YES
L0000317	0	0.72480E-07	413550.5	3766175.0	104.8	0.00	3.95	1.86	YES

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000318	0	0.72480E-07	413550.3	3766172.1	105.0	0.00	3.95	1.86	YES	
L0000319	0	0.72480E-07	413551.0	3766180.6	104.4	0.00	3.95	1.86	YES	
L0000320	0	0.72480E-07	413551.6	3766189.1	103.8	0.00	3.95	1.86	YES	
L0000321	0	0.72480E-07	413552.2	3766197.6	103.2	0.00	3.95	1.86	YES	
L0000322	0	0.72480E-07	413553.6	3766205.1	102.7	0.00	3.95	1.86	YES	
L0000323	0	0.72480E-07	413562.1	3766204.0	102.8	0.00	3.95	1.86	YES	
L0000324	0	0.72480E-07	413570.5	3766203.0	102.8	0.00	3.95	1.86	YES	
L0000325	0	0.72480E-07	413579.0	3766201.9	102.9	0.00	3.95	1.86	YES	
L0000326	0	0.72480E-07	413587.4	3766200.9	103.0	0.00	3.95	1.86	YES	
L0000327	0	0.72480E-07	413590.5	3766195.3	103.5	0.00	3.95	1.86	YES	
L0000328	0	0.72480E-07	413590.2	3766186.8	104.1	0.00	3.95	1.86	YES	
L0000329	0	0.72480E-07	413589.8	3766178.3	104.8	0.00	3.95	1.86	YES	
L0000330	0	0.72480E-07	413589.5	3766169.8	105.5	0.00	3.95	1.86	YES	
L0000331	0	0.72480E-07	413589.2	3766161.3	106.2	0.00	3.95	1.86	YES	
L0000332	0	0.72480E-07	413588.8	3766152.8	106.7	0.00	3.95	1.86	YES	
L0000333	0	0.72480E-07	413588.5	3766144.3	106.7	0.00	3.95	1.86	YES	
L0000334	0	0.72480E-07	413588.2	3766135.8	106.7	0.00	3.95	1.86	YES	
L0000335	0	0.72480E-07	413587.9	3766127.3	106.7	0.00	3.95	1.86	YES	
L0000336	0	0.72480E-07	413587.5	3766118.9	106.7	0.00	3.95	1.86	YES	
L0000337	0	0.72480E-07	413587.2	3766110.4	106.7	0.00	3.95	1.86	YES	
L0000338	0	0.72480E-07	413586.9	3766101.9	106.7	0.00	3.95	1.86	YES	
L0000339	0	0.72480E-07	413585.3	3766094.0	106.7	0.00	3.95	1.86	YES	
L0000340	0	0.72480E-07	413578.4	3766089.1	106.6	0.00	3.95	1.86	YES	
L0000341	0	0.72480E-07	413571.4	3766084.2	106.5	0.00	3.95	1.86	YES	
L0000342	0	0.72480E-07	413564.5	3766079.3	106.4	0.00	3.95	1.86	YES	
L0000343	0	0.72480E-07	413556.2	3766079.0	106.3	0.00	3.95	1.86	YES	
L0000344	0	0.72480E-07	413547.7	3766079.2	106.2	0.00	3.95	1.86	YES	
L0000345	0	0.72480E-07	413541.6	3766081.5	106.1	0.00	3.95	1.86	YES	
L0000346	0	0.72480E-07	413542.9	3766089.9	106.1	0.00	3.95	1.86	YES	
L0000347	0	0.72480E-07	413544.2	3766098.3	106.2	0.00	3.95	1.86	YES	
L0000348	0	0.72480E-07	413545.5	3766106.7	106.2	0.00	3.95	1.86	YES	
L0000349	0	0.72480E-07	413546.8	3766115.1	106.2	0.00	3.95	1.86	YES	
L0000350	0	0.72480E-07	413546.1	3766113.9	106.2	0.00	3.95	1.86	YES	
L0000351	0	0.72480E-07	413543.9	3766105.7	106.2	0.00	3.95	1.86	YES	
L0000352	0	0.72480E-07	413541.7	3766097.5	106.1	0.00	3.95	1.86	YES	
L0000353	0	0.72480E-07	413539.4	3766089.3	106.1	0.00	3.95	1.86	YES	
L0000354	0	0.72480E-07	413537.2	3766081.1	106.1	0.00	3.95	1.86	YES	
L0000355	0	0.72480E-07	413535.0	3766072.9	106.0	0.00	3.95	1.86	YES	
L0000356	0	0.72480E-07	413532.8	3766064.7	106.0	0.00	3.95	1.86	YES	
L0000357	0	0.72480E-07	413530.5	3766056.5	105.6	0.00	3.95	1.86	YES	

PAGE 4
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000358	0	0.72480E-07	413528.3	3766048.3	105.2	0.00	3.95	1.86	YES	
L0000359	0	0.72480E-07	413532.8	3766050.3	105.3	0.00	3.95	1.86	YES	
L0000360	0	0.72480E-07	413539.5	3766055.6	105.7	0.00	3.95	1.86	YES	
L0000361	0	0.72480E-07	413546.1	3766060.9	106.1	0.00	3.95	1.86	YES	
L0000362	0	0.72480E-07	413552.7	3766066.2	106.3	0.00	3.95	1.86	YES	
L0000363	0	0.72480E-07	413559.4	3766071.5	106.4	0.00	3.95	1.86	YES	
L0000364	0	0.72480E-07	413566.0	3766076.8	106.5	0.00	3.95	1.86	YES	
L0000365	0	0.72480E-07	413572.6	3766082.2	106.5	0.00	3.95	1.86	YES	
L0000366	0	0.72480E-07	413579.3	3766087.5	106.6	0.00	3.95	1.86	YES	
L0000367	0	0.72480E-07	413585.9	3766092.8	106.7	0.00	3.95	1.86	YES	
L0000368	0	0.72480E-07	413590.7	3766090.4	106.8	0.00	3.95	1.86	YES	
L0000369	0	0.72480E-07	413594.2	3766082.6	106.8	0.00	3.95	1.86	YES	
L0000370	0	0.72480E-07	413597.6	3766074.9	106.9	0.00	3.95	1.86	YES	
L0000371	0	0.72480E-07	413601.1	3766067.1	106.9	0.00	3.95	1.86	YES	
L0000372	0	0.72480E-07	413604.6	3766059.4	106.8	0.00	3.95	1.86	YES	
L0000373	0	0.72480E-07	413608.0	3766051.6	106.4	0.00	3.95	1.86	YES	
L0000374	0	0.72480E-07	413611.5	3766043.8	106.1	0.00	3.95	1.86	YES	
L0000375	0	0.72480E-07	413615.0	3766036.1	105.7	0.00	3.95	1.86	YES	
L0000376	0	0.72480E-07	413615.8	3766034.5	105.6	0.00	3.95	1.86	YES	
L0000377	0	0.72480E-07	413612.5	3766042.3	106.0	0.00	3.95	1.86	YES	
L0000378	0	0.72480E-07	413609.2	3766050.2	106.4	0.00	3.95	1.86	YES	
L0000379	0	0.72480E-07	413605.9	3766058.0	106.8	0.00	3.95	1.86	YES	
L0000380	0	0.72480E-07	413602.6	3766065.8	106.9	0.00	3.95	1.86	YES	
L0000381	0	0.72480E-07	413599.3	3766073.7	106.9	0.00	3.95	1.86	YES	
L0000382	0	0.72480E-07	413596.0	3766081.5	106.8	0.00	3.95	1.86	YES	
L0000383	0	0.72480E-07	413592.7	3766089.3	106.8	0.00	3.95	1.86	YES	
L0000384	0	0.72480E-07	413591.3	3766096.7	106.8	0.00	3.95	1.86	YES	
L0000385	0	0.72480E-07	413597.8	3766102.2	106.9	0.00	3.95	1.86	YES	
L0000386	0	0.72480E-07	413604.3	3766107.6	106.9	0.00	3.95	1.86	YES	
L0000387	0	0.72480E-07	413610.8	3766113.1	107.0	0.00	3.95	1.86	YES	
L0000388	0	0.72480E-07	413617.3	3766118.5	107.0	0.00	3.95	1.86	YES	
L0000389	0	0.72480E-07	413623.8	3766124.0	106.9	0.00	3.95	1.86	YES	
L0000390	0	0.72480E-07	413630.3	3766129.5	106.9	0.00	3.95	1.86	YES	
L0000391	0	0.72480E-07	413627.0	3766126.8	106.9	0.00	3.95	1.86	YES	
L0000392	0	0.72480E-07	413620.4	3766121.4	107.0	0.00	3.95	1.86	YES	
L0000393	0	0.72480E-07	413613.8	3766116.0	107.0	0.00	3.95	1.86	YES	
L0000394	0	0.72480E-07	413607.2	3766110.7	107.0	0.00	3.95	1.86	YES	
L0000395	0	0.72480E-07	413600.6	3766105.3	106.9	0.00	3.95	1.86	YES	
L0000396	0	0.72480E-07	413594.0	3766100.0	106.8	0.00	3.95	1.86	YES	
L0000397	0	0.72480E-07	413588.8	3766097.3	106.7	0.00	3.95	1.86	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\Echelon.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY

L0000398	0	0.72480E-07	413589.3	3766105.8	106.8	0.00	3.95	1.86	YES
L0000399	0	0.72480E-07	413589.9	3766114.2	106.8	0.00	3.95	1.86	YES
L0000400	0	0.72480E-07	413590.5	3766122.7	106.8	0.00	3.95	1.86	YES
L0000401	0	0.72480E-07	413591.1	3766131.2	106.8	0.00	3.95	1.86	YES
L0000402	0	0.72480E-07	413591.7	3766139.7	106.8	0.00	3.95	1.86	YES
L0000403	0	0.72480E-07	413592.2	3766148.2	106.8	0.00	3.95	1.86	YES
L0000404	0	0.72480E-07	413592.8	3766156.6	106.6	0.00	3.95	1.86	YES
L0000405	0	0.72480E-07	413593.4	3766165.1	105.9	0.00	3.95	1.86	YES
L0000406	0	0.72480E-07	413594.0	3766173.6	105.2	0.00	3.95	1.86	YES
L0000407	0	0.72480E-07	413594.6	3766182.1	104.5	0.00	3.95	1.86	YES
L0000408	0	0.72480E-07	413595.1	3766190.6	103.8	0.00	3.95	1.86	YES
L0000409	0	0.72480E-07	413595.7	3766199.1	103.1	0.00	3.95	1.86	YES
L0000410	0	0.72480E-07	413599.1	3766204.3	102.7	0.00	3.95	1.86	YES
L0000411	0	0.72480E-07	413607.6	3766203.6	102.8	0.00	3.95	1.86	YES
L0000412	0	0.72480E-07	413616.0	3766202.9	102.7	0.00	3.95	1.86	YES
L0000413	0	0.72480E-07	413624.5	3766202.2	102.6	0.00	3.95	1.86	YES
L0000414	0	0.72480E-07	413629.2	3766206.2	102.1	0.00	3.95	1.86	YES
L0000415	0	0.72480E-07	413630.6	3766214.6	101.3	0.00	3.95	1.86	YES
L0000416	0	0.72480E-07	413631.9	3766223.0	100.5	0.00	3.95	1.86	YES
L0000417	0	0.72480E-07	413632.1	3766223.6	100.5	0.00	3.95	1.86	YES
L0000418	0	0.72480E-07	413631.0	3766215.2	101.3	0.00	3.95	1.86	YES
L0000419	0	0.72480E-07	413630.0	3766206.8	102.0	0.00	3.95	1.86	YES
L0000420	0	0.69000E-07	413603.1	3766286.3	99.1	0.00	3.95	1.86	YES
L0000421	0	0.69000E-07	413611.5	3766285.6	99.0	0.00	3.95	1.86	YES
L0000422	0	0.69000E-07	413620.0	3766284.9	98.9	0.00	3.95	1.86	YES
L0000423	0	0.69000E-07	413628.5	3766284.2	98.8	0.00	3.95	1.86	YES
L0000424	0	0.69000E-07	413636.9	3766283.6	98.7	0.00	3.95	1.86	YES
L0000425	0	0.69000E-07	413645.4	3766282.9	98.6	0.00	3.95	1.86	YES
L0000426	0	0.69000E-07	413653.9	3766282.2	98.5	0.00	3.95	1.86	YES
L0000427	0	0.69000E-07	413662.4	3766281.5	98.4	0.00	3.95	1.86	YES
L0000428	0	0.69000E-07	413670.8	3766280.8	98.3	0.00	3.95	1.86	YES
L0000429	0	0.69000E-07	413679.3	3766280.1	98.2	0.00	3.95	1.86	YES
L0000430	0	0.69000E-07	413687.8	3766279.4	98.1	0.00	3.95	1.86	YES
L0000431	0	0.69000E-07	413696.2	3766278.7	98.1	0.00	3.95	1.86	YES
L0000432	0	0.69000E-07	413703.1	3766280.5	98.2	0.00	3.95	1.86	YES
L0000433	0	0.69000E-07	413703.9	3766288.9	98.5	0.00	3.95	1.86	YES
L0000434	0	0.69000E-07	413704.7	3766297.4	98.8	0.00	3.95	1.86	YES
L0000435	0	0.69000E-07	413705.4	3766305.9	99.1	0.00	3.95	1.86	YES
L0000436	0	0.69000E-07	413706.2	3766314.3	99.4	0.00	3.95	1.86	YES
L0000437	0	0.69000E-07	413706.9	3766322.8	99.7	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000438	0	0.69000E-07	413707.7	3766331.3	100.0	0.00	3.95	1.86	YES	
L0000439	0	0.69000E-07	413708.5	3766339.7	100.4	0.00	3.95	1.86	YES	
L0000440	0	0.69000E-07	413709.2	3766348.2	100.9	0.00	3.95	1.86	YES	
L0000441	0	0.69000E-07	413710.0	3766356.7	101.4	0.00	3.95	1.86	YES	
L0000442	0	0.69000E-07	413710.8	3766365.1	102.0	0.00	3.95	1.86	YES	
L0000443	0	0.69000E-07	413711.5	3766373.6	102.5	0.00	3.95	1.86	YES	
L0000444	0	0.69000E-07	413712.3	3766382.1	103.0	0.00	3.95	1.86	YES	

L0000445	0	0.69000E-07	413713.0	3766390.5	103.5	0.00	3.95	1.86	YES
L0000446	0	0.69000E-07	413713.8	3766399.0	104.1	0.00	3.95	1.86	YES
L0000447	0	0.69000E-07	413714.6	3766407.5	104.6	0.00	3.95	1.86	YES
L0000448	0	0.69000E-07	413715.3	3766415.9	105.1	0.00	3.95	1.86	YES
L0000449	0	0.69000E-07	413716.1	3766424.4	105.6	0.00	3.95	1.86	YES
L0000450	0	0.69000E-07	413716.8	3766432.9	106.0	0.00	3.95	1.86	YES
L0000451	0	0.69000E-07	413717.6	3766441.3	106.0	0.00	3.95	1.86	YES
L0000452	0	0.69000E-07	413718.4	3766449.8	106.0	0.00	3.95	1.86	YES
L0000453	0	0.69000E-07	413719.1	3766458.3	106.0	0.00	3.95	1.86	YES
L0000454	0	0.69000E-07	413719.9	3766466.7	106.1	0.00	3.95	1.86	YES
L0000455	0	0.69000E-07	413720.7	3766475.2	106.1	0.00	3.95	1.86	YES
L0000456	0	0.69000E-07	413721.4	3766483.7	106.1	0.00	3.95	1.86	YES
L0000457	0	0.69000E-07	413722.0	3766492.1	106.2	0.00	3.95	1.86	YES
L0000458	0	0.69000E-07	413722.4	3766500.6	106.2	0.00	3.95	1.86	YES
L0000459	0	0.69000E-07	413722.8	3766509.1	106.3	0.00	3.95	1.86	YES
L0000460	0	0.69000E-07	413723.3	3766517.6	106.3	0.00	3.95	1.86	YES
L0000461	0	0.69000E-07	413723.7	3766526.1	106.5	0.00	3.95	1.86	YES
L0000462	0	0.69000E-07	413724.2	3766534.6	107.2	0.00	3.95	1.86	YES
L0000463	0	0.69000E-07	413724.6	3766543.1	107.8	0.00	3.95	1.86	YES
L0000464	0	0.69000E-07	413725.1	3766551.6	108.4	0.00	3.95	1.86	YES
L0000465	0	0.69000E-07	413725.5	3766560.0	109.0	0.00	3.95	1.86	YES
L0000466	0	0.34600E-07	413729.8	3766561.9	109.3	0.00	3.95	1.86	YES
L0000467	0	0.34600E-07	413738.3	3766561.9	109.5	0.00	3.95	1.86	YES
L0000468	0	0.34600E-07	413746.8	3766561.9	109.7	0.00	3.95	1.86	YES
L0000469	0	0.34600E-07	413755.3	3766561.9	109.9	0.00	3.95	1.86	YES
L0000470	0	0.34600E-07	413763.8	3766561.9	110.1	0.00	3.95	1.86	YES
L0000471	0	0.34600E-07	413772.3	3766561.9	110.2	0.00	3.95	1.86	YES
L0000472	0	0.34600E-07	413780.8	3766561.9	110.3	0.00	3.95	1.86	YES
L0000473	0	0.34600E-07	413789.3	3766561.9	110.3	0.00	3.95	1.86	YES
L0000474	0	0.34600E-07	413797.8	3766561.9	110.4	0.00	3.95	1.86	YES
L0000475	0	0.34600E-07	413806.3	3766561.9	110.5	0.00	3.95	1.86	YES
L0000476	0	0.34600E-07	413814.8	3766561.9	110.6	0.00	3.95	1.86	YES
L0000477	0	0.34600E-07	413823.3	3766561.9	110.7	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000478	0	0.34600E-07	413831.8	3766561.9	110.8	0.00	3.95	1.86	YES	
L0000479	0	0.34600E-07	413840.3	3766561.4	110.8	0.00	3.95	1.86	YES	
L0000480	0	0.34600E-07	413848.8	3766560.8	110.9	0.00	3.95	1.86	YES	
L0000481	0	0.34600E-07	413857.3	3766560.3	111.0	0.00	3.95	1.86	YES	
L0000482	0	0.34600E-07	413865.7	3766559.7	111.2	0.00	3.95	1.86	YES	
L0000483	0	0.34600E-07	413874.2	3766559.1	111.3	0.00	3.95	1.86	YES	
L0000484	0	0.34600E-07	413882.7	3766558.5	111.4	0.00	3.95	1.86	YES	
L0000485	0	0.34600E-07	413891.2	3766557.9	111.5	0.00	3.95	1.86	YES	
L0000486	0	0.34600E-07	413899.6	3766557.0	111.7	0.00	3.95	1.86	YES	
L0000487	0	0.34600E-07	413908.1	3766556.1	111.8	0.00	3.95	1.86	YES	
L0000488	0	0.34600E-07	413916.5	3766555.2	111.9	0.00	3.95	1.86	YES	
L0000489	0	0.34600E-07	413925.0	3766554.3	112.1	0.00	3.95	1.86	YES	
L0000490	0	0.34600E-07	413933.4	3766553.4	112.2	0.00	3.95	1.86	YES	
L0000491	0	0.34600E-07	413941.9	3766552.5	112.4	0.00	3.95	1.86	YES	
L0000492	0	0.34600E-07	413950.3	3766551.6	112.5	0.00	3.95	1.86	YES	
L0000493	0	0.34600E-07	413958.8	3766550.7	112.7	0.00	3.95	1.86	YES	
L0000494	0	0.34600E-07	413967.2	3766549.8	112.8	0.00	3.95	1.86	YES	

L0000495	0	0.34600E-07	413975.7	3766548.9	113.0	0.00	3.95	1.86	YES	
L0000496	0	0.34600E-07	413984.2	3766548.0	113.2	0.00	3.95	1.86	YES	
L0000497	0	0.34600E-07	413992.6	3766547.1	113.3	0.00	3.95	1.86	YES	
L0000498	0	0.34600E-07	414001.1	3766546.2	113.5	0.00	3.95	1.86	YES	
L0000499	0	0.34600E-07	414009.5	3766545.3	113.5	0.00	3.95	1.86	YES	
L0000500	0	0.34600E-07	414018.0	3766544.5	113.6	0.00	3.95	1.86	YES	
L0000501	0	0.34580E-07	413715.6	3766561.4	108.9	0.00	3.95	1.86	YES	
L0000502	0	0.34580E-07	413707.1	3766562.0	108.8	0.00	3.95	1.86	YES	
L0000503	0	0.34580E-07	413698.7	3766562.6	108.6	0.00	3.95	1.86	YES	
L0000504	0	0.34580E-07	413690.2	3766563.3	108.5	0.00	3.95	1.86	YES	
L0000505	0	0.34580E-07	413681.7	3766563.9	108.4	0.00	3.95	1.86	YES	
L0000506	0	0.34580E-07	413673.2	3766564.5	108.3	0.00	3.95	1.86	YES	
L0000507	0	0.34580E-07	413664.8	3766565.1	108.2	0.00	3.95	1.86	YES	
L0000508	0	0.34580E-07	413656.3	3766565.7	108.2	0.00	3.95	1.86	YES	
L0000509	0	0.34580E-07	413647.8	3766566.3	108.1	0.00	3.95	1.86	YES	
L0000510	0	0.34580E-07	413639.3	3766566.9	108.0	0.00	3.95	1.86	YES	
L0000511	0	0.34580E-07	413630.8	3766567.5	108.0	0.00	3.95	1.86	YES	
L0000512	0	0.34580E-07	413622.4	3766568.1	107.9	0.00	3.95	1.86	YES	
L0000513	0	0.34580E-07	413613.9	3766568.7	107.8	0.00	3.95	1.86	YES	
L0000514	0	0.34580E-07	413605.4	3766569.4	107.7	0.00	3.95	1.86	YES	
L0000515	0	0.34580E-07	413596.9	3766570.0	107.4	0.00	3.95	1.86	YES	
L0000516	0	0.34580E-07	413588.5	3766570.6	107.2	0.00	3.95	1.86	YES	
L0000517	0	0.34580E-07	413580.0	3766571.2	107.0	0.00	3.95	1.86	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\Echelon.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000518	0	0.34580E-07	413571.5	3766571.8	106.7	0.00	3.95	1.86	YES	
L0000519	0	0.34580E-07	413563.0	3766572.4	106.5	0.00	3.95	1.86	YES	
L0000520	0	0.34580E-07	413554.5	3766573.0	106.2	0.00	3.95	1.86	YES	
L0000521	0	0.34580E-07	413546.1	3766573.6	105.9	0.00	3.95	1.86	YES	
L0000522	0	0.34580E-07	413537.6	3766574.2	105.7	0.00	3.95	1.86	YES	
L0000523	0	0.34580E-07	413529.1	3766574.9	105.4	0.00	3.95	1.86	YES	
L0000524	0	0.34580E-07	413520.6	3766575.5	105.2	0.00	3.95	1.86	YES	
L0000525	0	0.34580E-07	413512.2	3766576.1	105.0	0.00	3.95	1.86	YES	
L0000526	0	0.34580E-07	413503.7	3766576.7	104.7	0.00	3.95	1.86	YES	
L0000527	0	0.34580E-07	413495.2	3766577.3	104.5	0.00	3.95	1.86	YES	
L0000528	0	0.34580E-07	413486.7	3766577.9	104.2	0.00	3.95	1.86	YES	
L0000529	0	0.34580E-07	413478.2	3766578.5	104.0	0.00	3.95	1.86	YES	
L0000530	0	0.34580E-07	413469.8	3766579.1	103.7	0.00	3.95	1.86	YES	
L0000531	0	0.34580E-07	413461.3	3766579.7	103.5	0.00	3.95	1.86	YES	
L0000532	0	0.34580E-07	413452.8	3766580.3	103.3	0.00	3.95	1.86	YES	
L0000533	0	0.34580E-07	413444.3	3766581.0	103.2	0.00	3.95	1.86	YES	
L0000534	0	0.34580E-07	413435.8	3766581.6	103.0	0.00	3.95	1.86	YES	
L0000535	0	0.34580E-07	413427.4	3766582.2	102.9	0.00	3.95	1.86	YES	
L0000536	0	0.34580E-07	413418.9	3766582.8	102.7	0.00	3.95	1.86	YES	
L0000537	0	0.34580E-07	413410.4	3766583.4	102.6	0.00	3.95	1.86	YES	
L0000538	0	0.34580E-07	413401.9	3766584.0	102.4	0.00	3.95	1.86	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\Echelon.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	L0000278 , L0000279 , L0000280 , L0000281 , L0000282 , L0000283 , L0000284 , L0000285 ,
	L0000286 , L0000287 , L0000288 , L0000289 , L0000290 , L0000291 , L0000292 , L0000293 ,
	L0000294 , L0000295 , L0000296 , L0000297 , L0000298 , L0000299 , L0000300 , L0000301 ,
	L0000302 , L0000303 , L0000304 , L0000305 , L0000306 , L0000307 , L0000308 , L0000309 ,
	L0000310 , L0000311 , L0000312 , L0000313 , L0000314 , L0000315 , L0000316 , L0000317 ,
	L0000318 , L0000319 , L0000320 , L0000321 , L0000322 , L0000323 , L0000324 , L0000325 ,
	L0000326 , L0000327 , L0000328 , L0000329 , L0000330 , L0000331 , L0000332 , L0000333 ,
	L0000334 , L0000335 , L0000336 , L0000337 , L0000338 , L0000339 , L0000340 , L0000341 ,
	L0000342 , L0000343 , L0000344 , L0000345 , L0000346 , L0000347 , L0000348 , L0000349 ,
	L0000350 , L0000351 , L0000352 , L0000353 , L0000354 , L0000355 , L0000356 , L0000357 ,
	L0000358 , L0000359 , L0000360 , L0000361 , L0000362 , L0000363 , L0000364 , L0000365 ,
	L0000366 , L0000367 , L0000368 , L0000369 , L0000370 , L0000371 , L0000372 , L0000373 ,
	L0000374 , L0000375 , L0000376 , L0000377 , L0000378 , L0000379 , L0000380 , L0000381 ,
	L0000382 , L0000383 , L0000384 , L0000385 , L0000386 , L0000387 , L0000388 , L0000389 ,
	L0000390 , L0000391 , L0000392 , L0000393 , L0000394 , L0000395 , L0000396 , L0000397 ,
	L0000398 , L0000399 , L0000400 , L0000401 , L0000402 , L0000403 , L0000404 , L0000405 ,
	L0000406 , L0000407 , L0000408 , L0000409 , L0000410 , L0000411 , L0000412 , L0000413 ,
	L0000414 , L0000415 , L0000416 , L0000417 , L0000418 , L0000419 , L0000420 , L0000421 ,
	L0000422 , L0000423 , L0000424 , L0000425 , L0000426 , L0000427 , L0000428 , L0000429 ,
	L0000430 , L0000431 , L0000432 , L0000433 , L0000434 , L0000435 , L0000436 ,

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L0000437    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Echelon.isc                                  ***
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 *** AERMET - VERSION  14134 ***   ***                                                                            ***
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   PAGE  10
 **MODELOPTs:   RegDEFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
 -----------                                              ----------


             L0000438    , L0000439    , L0000440    , L0000441    , L0000442    , L0000443    , L0000444    ,
L0000445    ,

             L0000446    , L0000447    , L0000448    , L0000449    , L0000450    , L0000451    , L0000452    ,
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L0000461    ,

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L0000469    ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Echelon.isc                                  ***
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 *** AERMET - VERSION  14134 ***   ***                                                                            ***
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 **MODELOPTs:   RegDEFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------
```

```
              9862049.   L0000278    , L0000279    , L0000280    , L0000281    , L0000282    , L0000283    ,
L0000284    ,
 L0000285    ,

             L0000286    , L0000287    , L0000288    , L0000289    , L0000290    , L0000291    , L0000292    ,
L0000293    ,

             L0000294    , L0000295    , L0000296    , L0000297    , L0000298    , L0000299    , L0000300    ,
L0000301    ,

             L0000302    , L0000303    , L0000304    , L0000305    , L0000306    , L0000307    , L0000308    ,
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L0000373    ,

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L0000429    ,

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L0000437    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Echelon.isc                              ***
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 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


             L0000438    , L0000439    , L0000440    , L0000441    , L0000442    , L0000443    , L0000444    ,
L0000445    ,

             L0000446    , L0000447    , L0000448    , L0000449    , L0000450    , L0000451    , L0000452    ,
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             L0000534    , L0000535    , L0000536    , L0000537    , L0000538    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Echelon.isc                                ***
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 *** AERMET - VERSION  14134 ***   ***                                                                          ***
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   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                  (METERS)

     ( 413704.5, 3766249.9,      97.1,     233.0,       0.0);         ( 413712.1, 3766222.1,      99.2,     233.0,
     0.0);
     ( 413713.2, 3766205.1,     100.8,     233.0,       0.0);         ( 413692.3, 3766014.4,     105.5,     233.0,
     0.0);
     ( 413694.3, 3766085.9,     107.4,     233.0,       0.0);         ( 413398.0, 3766334.6,      97.4,     233.0,
     0.0);
     ( 413381.0, 3766181.4,     102.2,     233.0,       0.0);         ( 413378.2, 3766108.0,     102.5,     233.0,
     0.0);
     ( 413722.9, 3766299.5,      99.0,     233.0,       0.0);         ( 413756.0, 3766538.1,     108.5,     108.5,
```

```
     0.0);
     ( 413939.2, 3766532.3,     112.4,     112.4,       0.0);         ( 413748.8, 3766599.0,     112.0,     112.0,
     0.0);
     ( 413458.9, 3766616.3,     103.0,     103.0,       0.0);         ( 413710.9, 3766189.0,     102.3,     233.0,
     0.0);
     ( 413707.2, 3766169.2,     104.2,     233.0,       0.0);         ( 413703.0, 3766151.3,     105.8,     233.0,
     0.0);
     ( 413702.1, 3766134.7,     106.2,     233.0,       0.0);         ( 413699.8, 3766116.3,     106.7,     233.0,
     0.0);
     ( 413697.5, 3766101.6,     107.1,     233.0,       0.0);         ( 413697.1, 3766065.7,     107.9,     233.0,
     0.0);
     ( 413692.0, 3766046.4,     107.2,     233.0,       0.0);

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Echelon.isc                                 ***
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 *** AERMET - VERSION  14134 ***   ***                                                                          ***
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   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                              (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                     *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                          (METERS/SEC)

                                                  1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Echelon.isc                                 ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                          ***
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   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   pico8.sfc                                                                          Met Version:
14134
   Profile file:   pico8.PFL
   Surface format: FREE

   Profile format: FREE

   Surface station no.:        0                  Upper air station no.:     3190
```

Name: UNKNOWN Name: UNKNOWN
Year: 2008 Year: 2008

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
08	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	285.4	5.5
08	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	284.2	5.5
08	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	283.8	5.5
08	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	284.2	5.5
08	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	284.9	5.5
08	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	285.4	5.5
08	01	01	1	07	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	285.9	5.5
08	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	0.54	999.00	999.	-9.0	286.4	5.5
08	01	01	1	09	28.6	-9.000	-9.000	-9.000	61.	-999.	-99999.0	0.34	1.00	0.32	999.00	999.	-9.0	287.0	5.5
08	01	01	1	10	83.5	-9.000	-9.000	-9.000	164.	-999.	-99999.0	0.34	1.00	0.24	999.00	999.	-9.0	289.2	5.5
08	01	01	1	11	131.2	-9.000	-9.000	-9.000	427.	-999.	-99999.0	0.34	1.00	0.21	999.00	999.	-9.0	292.5	5.5
08	01	01	1	12	130.6	-9.000	-9.000	-9.000	620.	-999.	-99999.0	0.34	1.00	0.20	999.00	999.	-9.0	294.2	5.5
08	01	01	1	13	112.1	-9.000	-9.000	-9.000	723.	-999.	-99999.0	0.34	1.00	0.20	999.00	999.	-9.0	294.9	5.5
08	01	01	1	14	86.7	-9.000	-9.000	-9.000	762.	-999.	-99999.0	0.34	1.00	0.21	999.00	999.	-9.0	294.9	5.5
08	01	01	1	15	37.3	-9.000	-9.000	-9.000	778.	-999.	-99999.0	0.34	1.00	0.25	999.00	999.	-9.0	294.2	5.5
08	01	01	1	16	12.7	-9.000	-9.000	-9.000	783.	-999.	-99999.0	0.34	1.00	0.33	999.00	999.	-9.0	293.8	5.5
08	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	0.60	999.00	999.	-9.0	292.5	5.5
08	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	291.4	5.5
08	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	290.9	5.5
08	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.8	5.5
08	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.1	5.5
08	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.1	5.5
08	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.8	5.5
08	01	01	1	24	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	287.5	5.5

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
08	01	01	01	5.5	0	-999.	-99.00	285.4	99.0	-99.00	-99.00
08	01	01	01	9.1	1	-999.	-99.00	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\Echelon.isc ***
06/03/16
*** AERMET - VERSION 14134 *** *** ***

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0000278 , L0000279 , L0000280 , L0000281 , L0000282 ,
L0000283 , L0000284 , L0000285 , L0000286 , L0000287 , L0000288 , L0000289 , L0000290 ,
L0000291 , L0000292 , L0000293 , L0000294 , L0000295 , L0000296 , L0000297 , L0000298 ,
L0000299 , L0000300 , L0000301 , L0000302 , L0000303 , L0000304 , L0000305 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
413704.47	3766249.95	0.00424	413712.10	3766222.06	0.00418
413713.19	3766205.06	0.00425	413692.35	3766014.36	0.00357
413694.35	3766085.93	0.00478	413397.97	3766334.63	0.00134
413381.02	3766181.42	0.00192	413378.20	3766107.99	0.00194
413722.86	3766299.50	0.00326	413756.03	3766538.08	0.00145
413939.16	3766532.28	0.00090	413748.78	3766598.96	0.00103
413458.87	3766616.35	0.00073	413710.86	3766188.97	0.00443
413707.19	3766169.20	0.00465	413703.05	3766151.26	0.00489
413702.13	3766134.71	0.00489	413699.83	3766116.31	0.00490
413697.53	3766101.60	0.00484	413697.07	3766065.73	0.00426
413692.01	3766046.42	0.00427			

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\Echelon.isc *** 06/03/16
*** AERMET - VERSION 14134 *** *** *** 16:07:36

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00490 AT	(413699.83, 3766116.31, 106.70, 233.00, 0.00) DC	

```
 2ND HIGHEST VALUE IS       0.00489 AT (  413702.13,  3766134.71,   106.24,   233.00,    0.00)  DC

 3RD HIGHEST VALUE IS       0.00489 AT (  413703.05,  3766151.26,   105.84,   233.00,    0.00)  DC

 4TH HIGHEST VALUE IS       0.00484 AT (  413697.53,  3766101.60,   107.06,   233.00,    0.00)  DC

 5TH HIGHEST VALUE IS       0.00478 AT (  413694.35,  3766085.93,   107.43,   233.00,    0.00)  DC

 6TH HIGHEST VALUE IS       0.00465 AT (  413707.19,  3766169.20,   104.25,   233.00,    0.00)  DC

 7TH HIGHEST VALUE IS       0.00443 AT (  413710.86,  3766188.97,   102.35,   233.00,    0.00)  DC

 8TH HIGHEST VALUE IS       0.00427 AT (  413692.01,  3766046.42,   107.20,   233.00,    0.00)  DC

 9TH HIGHEST VALUE IS       0.00426 AT (  413697.07,  3766065.73,   107.89,   233.00,    0.00)  DC

10TH HIGHEST VALUE IS       0.00425 AT (  413713.19,  3766205.06,   100.82,   233.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Echelon.isc                            ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   16:07:36

   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of         1222 Informational Message(s)

 A Total of        43848 Hours Were Processed

 A Total of           13 Calm Hours Identified

 A Total of         1209 Missing Hours Identified (  2.76 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 6/3/2016
** File: C:\Lakes\AERMOD View\Echelon\Worker\Worker.ADI
```

```
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 9862049
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Worker.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Building A On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001218
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413555.837, 3766243.730, 100.06, 0.00, 3.95
** 413555.037, 3766226.136, 106.41, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0000539     VOLUME   413555.644 3766239.484 100.26
   LOCATION L0000540     VOLUME   413555.258 3766230.993 100.87
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC Building B On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001251
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413551.415, 3766167.645, 106.15, 0.00, 3.95
** 413552.125, 3766185.565, 106.26, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0000541     VOLUME   413551.583 3766171.892 105.06
   LOCATION L0000542     VOLUME   413551.920 3766180.385 104.46
** End of LINE VOLUME Source ID = SLINE2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC Building C On-Site Idling
** PREFIX
** Length of Side = 8.50
```

```
** Configuration = Adjacent
** Emission Rate = 0.00001251
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413547.446, 3766118.198, 105.62, 0.00, 3.95
** 413545.850, 3766100.633, 105.73, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000543     VOLUME   413547.062 3766113.966 106.20
   LOCATION L0000544     VOLUME   413546.292 3766105.501 106.19
** End of LINE VOLUME Source ID = SLINE3
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC Building G On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001251
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413619.111, 3766045.827, 102.25, 0.00, 3.95
** 413617.515, 3766028.262, 102.22, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000545     VOLUME   413618.727 3766041.595 106.04
   LOCATION L0000546     VOLUME   413617.957 3766033.130 105.57
** End of LINE VOLUME Source ID = SLINE7
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Building D On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001251
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413520.902, 3766048.637, 101.64, 0.00, 3.95
** 413538.424, 3766046.639, 101.67, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000547     VOLUME   413525.125 3766048.155 105.14
   LOCATION L0000548     VOLUME   413533.570 3766047.192 105.19
** End of LINE VOLUME Source ID = SLINE4
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC Building E On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001251
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413626.458, 3766219.150, 106.56, 0.00, 3.95
** 413643.980, 3766217.152, 106.47, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000549     VOLUME   413630.681 3766218.668 100.96
   LOCATION L0000550     VOLUME   413639.126 3766217.705 100.85
** End of LINE VOLUME Source ID = SLINE5
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC Building F On-Site Idling
** PREFIX
```

```
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001251
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413620.103, 3766131.599, 106.63, 0.00, 3.95
** 413637.625, 3766129.601, 106.75, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000551     VOLUME   413624.326 3766131.117 106.90
   LOCATION L0000552     VOLUME   413632.771 3766130.154 106.85
** End of LINE VOLUME Source ID = SLINE6
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001256
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 21
** 413596.091, 3766273.513, 99.36, 0.00, 3.95
** 413592.033, 3766201.823, 106.63, 0.00, 3.95
** 413552.806, 3766205.881, 106.36, 0.00, 3.95
** 413555.512, 3766243.079, 100.06, 0.00, 3.95
** 413550.101, 3766169.359, 106.14, 0.00, 3.95
** 413552.806, 3766205.205, 106.36, 0.00, 3.95
** 413590.680, 3766200.470, 106.63, 0.00, 3.95
** 413586.622, 3766094.964, 106.56, 0.00, 3.95
** 413563.627, 3766078.732, 106.21, 0.00, 3.95
** 413541.309, 3766079.409, 105.88, 0.00, 3.95
** 413547.396, 3766118.635, 105.62, 0.00, 3.95
** 413527.782, 3766046.269, 101.65, 0.00, 3.95
** 413588.651, 3766094.964, 106.58, 0.00, 3.95
** 413617.057, 3766031.390, 102.22, 0.00, 3.95
** 413590.004, 3766095.640, 106.59, 0.00, 3.95
** 413631.936, 3766130.809, 106.71, 0.00, 3.95
** 413588.651, 3766095.640, 106.58, 0.00, 3.95
** 413596.091, 3766204.528, 106.63, 0.00, 3.95
** 413628.554, 3766201.823, 106.62, 0.00, 3.95
** 413632.612, 3766227.523, 106.53, 0.00, 3.95
** 413629.231, 3766201.147, 106.62, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000553     VOLUME   413595.851 3766269.270 99.14
   LOCATION L0000554     VOLUME   413595.370 3766260.783 99.16
   LOCATION L0000555     VOLUME   413594.890 3766252.297 99.19
   LOCATION L0000556     VOLUME   413594.410 3766243.811 99.46
   LOCATION L0000557     VOLUME   413593.929 3766235.324 100.16
   LOCATION L0000558     VOLUME   413593.449 3766226.838 100.86
   LOCATION L0000559     VOLUME   413592.968 3766218.351 101.56
   LOCATION L0000560     VOLUME   413592.488 3766209.865 102.26
   LOCATION L0000561     VOLUME   413591.590 3766201.869 102.91
   LOCATION L0000562     VOLUME   413583.135 3766202.743 102.85
   LOCATION L0000563     VOLUME   413574.680 3766203.618 102.79
   LOCATION L0000564     VOLUME   413566.226 3766204.493 102.74
   LOCATION L0000565     VOLUME   413557.771 3766205.367 102.69
   LOCATION L0000566     VOLUME   413553.061 3766209.381 102.42
   LOCATION L0000567     VOLUME   413553.677 3766217.858 101.82
   LOCATION L0000568     VOLUME   413554.294 3766226.336 101.21
   LOCATION L0000569     VOLUME   413554.910 3766234.813 100.60
   LOCATION L0000570     VOLUME   413555.496 3766242.866 100.03
   LOCATION L0000571     VOLUME   413554.874 3766234.389 100.63
   LOCATION L0000572     VOLUME   413554.252 3766225.912 101.24
   LOCATION L0000573     VOLUME   413553.629 3766217.435 101.85
   LOCATION L0000574     VOLUME   413553.007 3766208.957 102.45
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LOCATION	L0000575	VOLUME	413552.385	3766200.480	103.05
LOCATION	L0000576	VOLUME	413551.763	3766192.003	103.64
LOCATION	L0000577	VOLUME	413551.141	3766183.526	104.24
LOCATION	L0000578	VOLUME	413550.518	3766175.049	104.83
LOCATION	L0000579	VOLUME	413550.311	3766172.147	105.03
LOCATION	L0000580	VOLUME	413550.951	3766180.623	104.44
LOCATION	L0000581	VOLUME	413551.591	3766189.099	103.85
LOCATION	L0000582	VOLUME	413552.230	3766197.575	103.25
LOCATION	L0000583	VOLUME	413553.648	3766205.099	102.72
LOCATION	L0000584	VOLUME	413562.083	3766204.045	102.78
LOCATION	L0000585	VOLUME	413570.517	3766202.991	102.85
LOCATION	L0000586	VOLUME	413578.951	3766201.936	102.92
LOCATION	L0000587	VOLUME	413587.386	3766200.882	102.99
LOCATION	L0000588	VOLUME	413590.481	3766195.294	103.45
LOCATION	L0000589	VOLUME	413590.155	3766186.801	104.13
LOCATION	L0000590	VOLUME	413589.828	3766178.307	104.82
LOCATION	L0000591	VOLUME	413589.501	3766169.813	105.51
LOCATION	L0000592	VOLUME	413589.174	3766161.319	106.19
LOCATION	L0000593	VOLUME	413588.848	3766152.826	106.73
LOCATION	L0000594	VOLUME	413588.521	3766144.332	106.73
LOCATION	L0000595	VOLUME	413588.194	3766135.838	106.73
LOCATION	L0000596	VOLUME	413587.868	3766127.345	106.72
LOCATION	L0000597	VOLUME	413587.541	3766118.851	106.72
LOCATION	L0000598	VOLUME	413587.214	3766110.357	106.72
LOCATION	L0000599	VOLUME	413586.888	3766101.863	106.71
LOCATION	L0000600	VOLUME	413585.319	3766094.044	106.70
LOCATION	L0000601	VOLUME	413578.375	3766089.142	106.61
LOCATION	L0000602	VOLUME	413571.430	3766084.240	106.52
LOCATION	L0000603	VOLUME	413564.486	3766079.338	106.43
LOCATION	L0000604	VOLUME	413556.182	3766078.958	106.32
LOCATION	L0000605	VOLUME	413547.686	3766079.215	106.21
LOCATION	L0000606	VOLUME	413541.634	3766081.503	106.13
LOCATION	L0000607	VOLUME	413542.937	3766089.903	106.15
LOCATION	L0000608	VOLUME	413544.241	3766098.302	106.16
LOCATION	L0000609	VOLUME	413545.544	3766106.702	106.18
LOCATION	L0000610	VOLUME	413546.847	3766115.101	106.19
LOCATION	L0000611	VOLUME	413546.108	3766113.883	106.18
LOCATION	L0000612	VOLUME	413543.884	3766105.679	106.16
LOCATION	L0000613	VOLUME	413541.661	3766097.475	106.13
LOCATION	L0000614	VOLUME	413539.437	3766089.271	106.10
LOCATION	L0000615	VOLUME	413537.214	3766081.067	106.07
LOCATION	L0000616	VOLUME	413534.990	3766072.863	106.04
LOCATION	L0000617	VOLUME	413532.767	3766064.659	106.02
LOCATION	L0000618	VOLUME	413530.543	3766056.455	105.65
LOCATION	L0000619	VOLUME	413528.319	3766048.251	105.18
LOCATION	L0000620	VOLUME	413532.816	3766050.296	105.35
LOCATION	L0000621	VOLUME	413539.453	3766055.606	105.72
LOCATION	L0000622	VOLUME	413546.091	3766060.916	106.10
LOCATION	L0000623	VOLUME	413552.728	3766066.225	106.28
LOCATION	L0000624	VOLUME	413559.366	3766071.535	106.36
LOCATION	L0000625	VOLUME	413566.003	3766076.845	106.45
LOCATION	L0000626	VOLUME	413572.640	3766082.155	106.53
LOCATION	L0000627	VOLUME	413579.278	3766087.465	106.62
LOCATION	L0000628	VOLUME	413585.915	3766092.775	106.70
LOCATION	L0000629	VOLUME	413590.689	3766090.403	106.77
LOCATION	L0000630	VOLUME	413594.157	3766082.642	106.81
LOCATION	L0000631	VOLUME	413597.624	3766074.881	106.86
LOCATION	L0000632	VOLUME	413601.092	3766067.121	106.90
LOCATION	L0000633	VOLUME	413604.559	3766059.360	106.81
LOCATION	L0000634	VOLUME	413608.027	3766051.600	106.43
LOCATION	L0000635	VOLUME	413611.494	3766043.839	106.06
LOCATION	L0000636	VOLUME	413614.962	3766036.079	105.69
LOCATION	L0000637	VOLUME	413615.751	3766034.490	105.61
LOCATION	L0000638	VOLUME	413612.453	3766042.324	105.99
LOCATION	L0000639	VOLUME	413609.154	3766050.158	106.37
LOCATION	L0000640	VOLUME	413605.856	3766057.992	106.75
LOCATION	L0000641	VOLUME	413602.557	3766065.826	106.92

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   LOCATION L0000642     VOLUME   413599.259 3766073.660 106.88
   LOCATION L0000643     VOLUME   413595.960 3766081.494 106.84
   LOCATION L0000644     VOLUME   413592.662 3766089.328 106.79
   LOCATION L0000645     VOLUME   413591.269 3766096.701 106.77
   LOCATION L0000646     VOLUME   413597.781 3766102.163 106.86
   LOCATION L0000647     VOLUME   413604.294 3766107.625 106.94
   LOCATION L0000648     VOLUME   413610.807 3766113.088 107.00
   LOCATION L0000649     VOLUME   413617.319 3766118.550 106.98
   LOCATION L0000650     VOLUME   413623.832 3766124.012 106.93
   LOCATION L0000651     VOLUME   413630.344 3766129.474 106.87
   LOCATION L0000652     VOLUME   413626.951 3766126.759 106.91
   LOCATION L0000653     VOLUME   413620.354 3766121.399 106.96
   LOCATION L0000654     VOLUME   413613.757 3766116.039 106.99
   LOCATION L0000655     VOLUME   413607.160 3766110.679 106.98
   LOCATION L0000656     VOLUME   413600.563 3766105.319 106.89
   LOCATION L0000657     VOLUME   413593.966 3766099.959 106.81
   LOCATION L0000658     VOLUME   413588.764 3766097.288 106.74
   LOCATION L0000659     VOLUME   413589.343 3766105.768 106.75
   LOCATION L0000660     VOLUME   413589.923 3766114.249 106.75
   LOCATION L0000661     VOLUME   413590.502 3766122.729 106.76
   LOCATION L0000662     VOLUME   413591.081 3766131.209 106.77
   LOCATION L0000663     VOLUME   413591.661 3766139.689 106.77
   LOCATION L0000664     VOLUME   413592.240 3766148.170 106.78
   LOCATION L0000665     VOLUME   413592.820 3766156.650 106.61
   LOCATION L0000666     VOLUME   413593.399 3766165.130 105.92
   LOCATION L0000667     VOLUME   413593.978 3766173.610 105.23
   LOCATION L0000668     VOLUME   413594.558 3766182.091 104.54
   LOCATION L0000669     VOLUME   413595.137 3766190.571 103.84
   LOCATION L0000670     VOLUME   413595.717 3766199.051 103.14
   LOCATION L0000671     VOLUME   413599.090 3766204.278 102.70
   LOCATION L0000672     VOLUME   413607.561 3766203.572 102.75
   LOCATION L0000673     VOLUME   413616.032 3766202.866 102.67
   LOCATION L0000674     VOLUME   413624.502 3766202.161 102.56
   LOCATION L0000675     VOLUME   413629.246 3766206.203 102.10
   LOCATION L0000676     VOLUME   413630.572 3766214.599 101.33
   LOCATION L0000677     VOLUME   413631.897 3766222.995 100.55
   LOCATION L0000678     VOLUME   413632.114 3766223.640 100.48
   LOCATION L0000679     VOLUME   413631.033 3766215.209 101.26
   LOCATION L0000680     VOLUME   413629.953 3766206.778 102.04
** End of LINE VOLUME Source ID = SLINE8
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC 100% Echelon to Amar
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 3.974E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 413598.822, 3766286.660, 99.45, 0.00, 3.95
** 413696.610, 3766278.710, 97.66, 0.00, 3.95
** 413702.970, 3766278.710, 97.68, 0.00, 3.95
** 413721.654, 3766486.212, 105.40, 0.00, 3.95
** 413725.667, 3766563.285, 106.07, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000681     VOLUME   413603.058 3766286.315 99.06
   LOCATION L0000682     VOLUME   413611.530 3766285.627 98.99
   LOCATION L0000683     VOLUME   413620.002 3766284.938 98.91
   LOCATION L0000684     VOLUME   413628.474 3766284.249 98.82
   LOCATION L0000685     VOLUME   413636.946 3766283.560 98.73
   LOCATION L0000686     VOLUME   413645.418 3766282.872 98.63
   LOCATION L0000687     VOLUME   413653.890 3766282.183 98.53
   LOCATION L0000688     VOLUME   413662.362 3766281.494 98.42
   LOCATION L0000689     VOLUME   413670.834 3766280.805 98.31
   LOCATION L0000690     VOLUME   413679.306 3766280.116 98.20
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                                                    Echelon
   LOCATION L0000691     VOLUME   413687.778 3766279.428 98.08
   LOCATION L0000692     VOLUME   413696.250 3766278.739 98.10
   LOCATION L0000693     VOLUME   413703.130 3766280.481 98.20
   LOCATION L0000694     VOLUME   413703.892 3766288.947 98.50
   LOCATION L0000695     VOLUME   413704.654 3766297.413 98.79
   LOCATION L0000696     VOLUME   413705.417 3766305.878 99.10
   LOCATION L0000697     VOLUME   413706.179 3766314.344 99.40
   LOCATION L0000698     VOLUME   413706.941 3766322.810 99.70
   LOCATION L0000699     VOLUME   413707.703 3766331.276 100.01
   LOCATION L0000700     VOLUME   413708.466 3766339.741 100.36
   LOCATION L0000701     VOLUME   413709.228 3766348.207 100.89
   LOCATION L0000702     VOLUME   413709.990 3766356.673 101.42
   LOCATION L0000703     VOLUME   413710.752 3766365.139 101.95
   LOCATION L0000704     VOLUME   413711.515 3766373.604 102.48
   LOCATION L0000705     VOLUME   413712.277 3766382.070 103.01
   LOCATION L0000706     VOLUME   413713.039 3766390.536 103.53
   LOCATION L0000707     VOLUME   413713.801 3766399.002 104.06
   LOCATION L0000708     VOLUME   413714.564 3766407.467 104.58
   LOCATION L0000709     VOLUME   413715.326 3766415.933 105.10
   LOCATION L0000710     VOLUME   413716.088 3766424.399 105.62
   LOCATION L0000711     VOLUME   413716.850 3766432.865 106.00
   LOCATION L0000712     VOLUME   413717.613 3766441.330 106.01
   LOCATION L0000713     VOLUME   413718.375 3766449.796 106.03
   LOCATION L0000714     VOLUME   413719.137 3766458.262 106.05
   LOCATION L0000715     VOLUME   413719.899 3766466.728 106.08
   LOCATION L0000716     VOLUME   413720.661 3766475.193 106.11
   LOCATION L0000717     VOLUME   413721.424 3766483.659 106.15
   LOCATION L0000718     VOLUME   413721.962 3766492.141 106.18
   LOCATION L0000719     VOLUME   413722.404 3766500.629 106.22
   LOCATION L0000720     VOLUME   413722.846 3766509.118 106.26
   LOCATION L0000721     VOLUME   413723.288 3766517.606 106.30
   LOCATION L0000722     VOLUME   413723.730 3766526.095 106.55
   LOCATION L0000723     VOLUME   413724.172 3766534.583 107.18
   LOCATION L0000724     VOLUME   413724.614 3766543.072 107.80
   LOCATION L0000725     VOLUME   413725.056 3766551.560 108.42
   LOCATION L0000726     VOLUME   413725.498 3766560.049 109.04
** End of LINE VOLUME Source ID = SLINE9
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC 50% Amar Rd. to/from the east
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 1.516E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 4
** 413725.565, 3766561.947, 106.07, 0.00, 3.95
** 413832.664, 3766561.947, 109.48, 0.00, 3.95
** 413889.858, 3766558.022, 110.18, 0.00, 3.95
** 414022.190, 3766544.003, 113.64, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000727     VOLUME   413729.815 3766561.947 109.27
   LOCATION L0000728     VOLUME   413738.315 3766561.947 109.47
   LOCATION L0000729     VOLUME   413746.815 3766561.947 109.67
   LOCATION L0000730     VOLUME   413755.315 3766561.947 109.86
   LOCATION L0000731     VOLUME   413763.815 3766561.947 110.06
   LOCATION L0000732     VOLUME   413772.315 3766561.947 110.18
   LOCATION L0000733     VOLUME   413780.815 3766561.947 110.27
   LOCATION L0000734     VOLUME   413789.315 3766561.947 110.35
   LOCATION L0000735     VOLUME   413797.815 3766561.947 110.43
   LOCATION L0000736     VOLUME   413806.315 3766561.947 110.51
   LOCATION L0000737     VOLUME   413814.815 3766561.947 110.59
   LOCATION L0000738     VOLUME   413823.315 3766561.947 110.67
   LOCATION L0000739     VOLUME   413831.815 3766561.947 110.75
   LOCATION L0000740     VOLUME   413840.297 3766561.423 110.82
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                                                    Echelon
   LOCATION L0000741     VOLUME   413848.777 3766560.841 110.92
   LOCATION L0000742     VOLUME   413857.257 3766560.259 111.04
   LOCATION L0000743     VOLUME   413865.737 3766559.677 111.16
   LOCATION L0000744     VOLUME   413874.217 3766559.095 111.28
   LOCATION L0000745     VOLUME   413882.697 3766558.513 111.41
   LOCATION L0000746     VOLUME   413891.173 3766557.882 111.53
   LOCATION L0000747     VOLUME   413899.626 3766556.987 111.66
   LOCATION L0000748     VOLUME   413908.079 3766556.092 111.80
   LOCATION L0000749     VOLUME   413916.531 3766555.196 111.93
   LOCATION L0000750     VOLUME   413924.984 3766554.301 112.07
   LOCATION L0000751     VOLUME   413933.437 3766553.405 112.22
   LOCATION L0000752     VOLUME   413941.889 3766552.510 112.36
   LOCATION L0000753     VOLUME   413950.342 3766551.614 112.52
   LOCATION L0000754     VOLUME   413958.795 3766550.719 112.67
   LOCATION L0000755     VOLUME   413967.248 3766549.824 112.83
   LOCATION L0000756     VOLUME   413975.700 3766548.928 112.99
   LOCATION L0000757     VOLUME   413984.153 3766548.033 113.16
   LOCATION L0000758     VOLUME   413992.606 3766547.137 113.33
   LOCATION L0000759     VOLUME   414001.058 3766546.242 113.46
   LOCATION L0000760     VOLUME   414009.511 3766545.347 113.53
   LOCATION L0000761     VOLUME   414017.964 3766544.451 113.60
** End of LINE VOLUME Source ID = SLINE10
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC 50% Amar Rd. to/from the west
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 1.645E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413719.864, 3766561.117, 105.87, 0.00, 3.95
** 413397.900, 3766584.298, 103.50, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000762     VOLUME   413715.625 3766561.422 108.91
   LOCATION L0000763     VOLUME   413707.147 3766562.032 108.75
   LOCATION L0000764     VOLUME   413698.668 3766562.643 108.61
   LOCATION L0000765     VOLUME   413690.190 3766563.253 108.46
   LOCATION L0000766     VOLUME   413681.712 3766563.864 108.38
   LOCATION L0000767     VOLUME   413673.234 3766564.474 108.31
   LOCATION L0000768     VOLUME   413664.756 3766565.084 108.24
   LOCATION L0000769     VOLUME   413656.278 3766565.695 108.17
   LOCATION L0000770     VOLUME   413647.800 3766566.305 108.10
   LOCATION L0000771     VOLUME   413639.322 3766566.916 108.03
   LOCATION L0000772     VOLUME   413630.844 3766567.526 107.97
   LOCATION L0000773     VOLUME   413622.366 3766568.137 107.91
   LOCATION L0000774     VOLUME   413613.888 3766568.747 107.85
   LOCATION L0000775     VOLUME   413605.410 3766569.357 107.66
   LOCATION L0000776     VOLUME   413596.932 3766569.968 107.44
   LOCATION L0000777     VOLUME   413588.454 3766570.578 107.21
   LOCATION L0000778     VOLUME   413579.976 3766571.189 106.97
   LOCATION L0000779     VOLUME   413571.498 3766571.799 106.73
   LOCATION L0000780     VOLUME   413563.020 3766572.410 106.47
   LOCATION L0000781     VOLUME   413554.542 3766573.020 106.21
   LOCATION L0000782     VOLUME   413546.064 3766573.630 105.94
   LOCATION L0000783     VOLUME   413537.585 3766574.241 105.66
   LOCATION L0000784     VOLUME   413529.107 3766574.851 105.43
   LOCATION L0000785     VOLUME   413520.629 3766575.462 105.20
   LOCATION L0000786     VOLUME   413512.151 3766576.072 104.97
   LOCATION L0000787     VOLUME   413503.673 3766576.682 104.73
   LOCATION L0000788     VOLUME   413495.195 3766577.293 104.49
   LOCATION L0000789     VOLUME   413486.717 3766577.903 104.24
   LOCATION L0000790     VOLUME   413478.239 3766578.514 103.99
   LOCATION L0000791     VOLUME   413469.761 3766579.124 103.73
   LOCATION L0000792     VOLUME   413461.283 3766579.735 103.47
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   LOCATION L0000793     VOLUME   413452.805 3766580.345 103.31
   LOCATION L0000794     VOLUME   413444.327 3766580.955 103.17
   LOCATION L0000795     VOLUME   413435.849 3766581.566 103.03
   LOCATION L0000796     VOLUME   413427.371 3766582.176 102.88
   LOCATION L0000797     VOLUME   413418.893 3766582.787 102.73
   LOCATION L0000798     VOLUME   413410.415 3766583.397 102.59
   LOCATION L0000799     VOLUME   413401.937 3766584.008 102.43
** End of LINE VOLUME Source ID = SLINE11
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000539     0.00000609      0.00      3.95      1.86
   SRCPARAM L0000540     0.00000609      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0000541     0.000006255      0.00      3.95      1.86
   SRCPARAM L0000542     0.000006255      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0000543     0.000006255      0.00      3.95      1.86
   SRCPARAM L0000544     0.000006255      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0000545     0.000006255      0.00      3.95      1.86
   SRCPARAM L0000546     0.000006255      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0000547     0.000006255      0.00      3.95      1.86
   SRCPARAM L0000548     0.000006255      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0000549     0.000006255      0.00      3.95      1.86
   SRCPARAM L0000550     0.000006255      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0000551     0.000006255      0.00      3.95      1.86
   SRCPARAM L0000552     0.000006255      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0000553     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000554     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000555     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000556     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000557     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000558     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000559     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000560     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000561     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000562     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000563     0.00000009813      0.00      3.95      1.86
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   SRCPARAM L0000565     0.00000009813      0.00      3.95      1.86
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   SRCPARAM L0000572     0.00000009813      0.00      3.95      1.86
   SRCPARAM L0000573     0.00000009813      0.00      3.95      1.86
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   SRCPARAM L0000581     0.00000009813      0.00      3.95      1.86
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SRCPARAM	L0000586	0.00000009813	0.00	3.95	1.86
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SRCPARAM	L0000588	0.00000009813	0.00	3.95	1.86
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SRCPARAM	L0000591	0.00000009813	0.00	3.95	1.86
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SRCPARAM	L0000599	0.00000009813	0.00	3.95	1.86
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SRCPARAM	L0000601	0.00000009813	0.00	3.95	1.86
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SRCPARAM	L0000648	0.00000009813	0.00	3.95	1.86

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                                                        Echelon
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** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
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   SRCPARAM L0000695     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000696     0.00000008639      0.00      3.95      1.86
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   SRCPARAM L0000701     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000702     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000703     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000704     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000705     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000706     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000707     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000708     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000709     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000710     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000711     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000712     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000713     0.00000008639      0.00      3.95      1.86
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                                                        Echelon
   SRCPARAM L0000714     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000715     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000716     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000717     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000718     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000719     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000720     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000721     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000722     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000723     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000724     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000725     0.00000008639      0.00      3.95      1.86
   SRCPARAM L0000726     0.00000008639      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0000727     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000728     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000729     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000730     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000731     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000732     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000733     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000734     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000735     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000736     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000737     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000738     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000739     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000740     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000741     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000742     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000743     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000744     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000745     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000746     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000747     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000748     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000749     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000750     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000751     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000752     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000753     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000754     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000755     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000756     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000757     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000758     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000759     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000760     0.00000004331      0.00      3.95      1.86
   SRCPARAM L0000761     0.00000004331      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0000762     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000763     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000764     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000765     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000766     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000767     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000768     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000769     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000770     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000771     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000772     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000773     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000774     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000775     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000776     0.00000004329      0.00      3.95      1.86
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                                                        Echelon
   SRCPARAM L0000777     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000778     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000779     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000780     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000781     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000782     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000783     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000784     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000785     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000786     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000787     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000788     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000789     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000790     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000791     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000792     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000793     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000794     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000795     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000796     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000797     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000798     0.00000004329      0.00      3.95      1.86
   SRCPARAM L0000799     0.00000004329      0.00      3.95      1.86
** ----------------------------------------------------------------------
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "12 hour exposure"
   EMISFACT L0000539     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000539     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000539     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000539     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000540     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000540     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000540     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000540     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000541     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000541     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000541     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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   EMISFACT L0000542     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000542     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000542     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000542     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000543     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000543     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000543     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000543     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000544     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000544     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000544     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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   EMISFACT L0000545     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000545     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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   EMISFACT L0000546     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000546     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000546     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000546     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000547     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000548     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000548     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000548     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000549     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000550     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000551     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000552     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000552     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000553     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000554     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000554     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000555     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000555     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000556     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000557     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000558     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000559     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000565     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000581     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000582     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000716     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000777     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000780     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000781     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000781     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000781     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000781     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000782     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000782     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000783     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000787     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000787     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000789     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000789     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000790     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000790     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000791     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000791     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000791     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000792     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000792     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000792     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000792     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000793     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000794     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000794     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000795     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000795     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000795     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000795     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000796     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000796     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000796     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000796     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000797     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000798     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000798     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000798     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000798     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000799     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000799     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000799     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Worker.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE pico8.sfc
   PROFFILE pico8.PFL
   SURFDATA 0 2008
   UAIRDATA 3190 2008
   SITEDATA 99999 2008
   PROFBASE 58.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL WORKER.AD\AN00GALL.PLT 31
   SUMMFILE Worker.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                       ***
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 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   261 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
```

```
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:    261 Source(s);       1 Source Group(s); and      10 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:    261 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    58.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.7 MB of RAM.

 **Detailed Error/Message File:   Worker.err

 **File for Summary of Results:   Worker.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
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 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE     PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID       CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -
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L0000539	0	0.60900E-05	413555.6	3766239.5	100.3	0.00	3.95	1.86	YES	HROFDY
L0000540	0	0.60900E-05	413555.3	3766231.0	100.9	0.00	3.95	1.86	YES	HROFDY
L0000541	0	0.62550E-05	413551.6	3766171.9	105.1	0.00	3.95	1.86	YES	HROFDY
L0000542	0	0.62550E-05	413551.9	3766180.4	104.5	0.00	3.95	1.86	YES	HROFDY
L0000543	0	0.62550E-05	413547.1	3766114.0	106.2	0.00	3.95	1.86	YES	HROFDY
L0000544	0	0.62550E-05	413546.3	3766105.5	106.2	0.00	3.95	1.86	YES	HROFDY
L0000545	0	0.62550E-05	413618.7	3766041.6	106.0	0.00	3.95	1.86	YES	HROFDY
L0000546	0	0.62550E-05	413618.0	3766033.1	105.6	0.00	3.95	1.86	YES	HROFDY
L0000547	0	0.62550E-05	413525.1	3766048.2	105.1	0.00	3.95	1.86	YES	HROFDY
L0000548	0	0.62550E-05	413533.6	3766047.2	105.2	0.00	3.95	1.86	YES	HROFDY
L0000549	0	0.62550E-05	413630.7	3766218.7	101.0	0.00	3.95	1.86	YES	HROFDY
L0000550	0	0.62550E-05	413639.1	3766217.7	100.8	0.00	3.95	1.86	YES	HROFDY
L0000551	0	0.62550E-05	413624.3	3766131.1	106.9	0.00	3.95	1.86	YES	HROFDY
L0000552	0	0.62550E-05	413632.8	3766130.2	106.8	0.00	3.95	1.86	YES	HROFDY
L0000553	0	0.98130E-07	413595.9	3766269.3	99.1	0.00	3.95	1.86	YES	HROFDY
L0000554	0	0.98130E-07	413595.4	3766260.8	99.2	0.00	3.95	1.86	YES	HROFDY
L0000555	0	0.98130E-07	413594.9	3766252.3	99.2	0.00	3.95	1.86	YES	HROFDY
L0000556	0	0.98130E-07	413594.4	3766243.8	99.5	0.00	3.95	1.86	YES	HROFDY
L0000557	0	0.98130E-07	413593.9	3766235.3	100.2	0.00	3.95	1.86	YES	HROFDY
L0000558	0	0.98130E-07	413593.4	3766226.8	100.9	0.00	3.95	1.86	YES	HROFDY
L0000559	0	0.98130E-07	413593.0	3766218.4	101.6	0.00	3.95	1.86	YES	HROFDY
L0000560	0	0.98130E-07	413592.5	3766209.9	102.3	0.00	3.95	1.86	YES	HROFDY
L0000561	0	0.98130E-07	413591.6	3766201.9	102.9	0.00	3.95	1.86	YES	HROFDY
L0000562	0	0.98130E-07	413583.1	3766202.7	102.8	0.00	3.95	1.86	YES	HROFDY
L0000563	0	0.98130E-07	413574.7	3766203.6	102.8	0.00	3.95	1.86	YES	HROFDY
L0000564	0	0.98130E-07	413566.2	3766204.5	102.7	0.00	3.95	1.86	YES	HROFDY
L0000565	0	0.98130E-07	413557.8	3766205.4	102.7	0.00	3.95	1.86	YES	HROFDY
L0000566	0	0.98130E-07	413553.1	3766209.4	102.4	0.00	3.95	1.86	YES	HROFDY
L0000567	0	0.98130E-07	413553.7	3766217.9	101.8	0.00	3.95	1.86	YES	HROFDY
L0000568	0	0.98130E-07	413554.3	3766226.3	101.2	0.00	3.95	1.86	YES	HROFDY
L0000569	0	0.98130E-07	413554.9	3766234.8	100.6	0.00	3.95	1.86	YES	HROFDY
L0000570	0	0.98130E-07	413555.5	3766242.9	100.0	0.00	3.95	1.86	YES	HROFDY
L0000571	0	0.98130E-07	413554.9	3766234.4	100.6	0.00	3.95	1.86	YES	HROFDY
L0000572	0	0.98130E-07	413554.3	3766225.9	101.2	0.00	3.95	1.86	YES	HROFDY
L0000573	0	0.98130E-07	413553.6	3766217.4	101.8	0.00	3.95	1.86	YES	HROFDY
L0000574	0	0.98130E-07	413553.0	3766209.0	102.5	0.00	3.95	1.86	YES	HROFDY
L0000575	0	0.98130E-07	413552.4	3766200.5	103.0	0.00	3.95	1.86	YES	HROFDY
L0000576	0	0.98130E-07	413551.8	3766192.0	103.6	0.00	3.95	1.86	YES	HROFDY
L0000577	0	0.98130E-07	413551.1	3766183.5	104.2	0.00	3.95	1.86	YES	HROFDY
L0000578	0	0.98130E-07	413550.5	3766175.0	104.8	0.00	3.95	1.86	YES	HROFDY

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000579	0	0.98130E-07	413550.3	3766172.1	105.0	0.00	3.95	1.86	YES	HROFDY
L0000580	0	0.98130E-07	413551.0	3766180.6	104.4	0.00	3.95	1.86	YES	HROFDY
L0000581	0	0.98130E-07	413551.6	3766189.1	103.8	0.00	3.95	1.86	YES	HROFDY
L0000582	0	0.98130E-07	413552.2	3766197.6	103.2	0.00	3.95	1.86	YES	HROFDY
L0000583	0	0.98130E-07	413553.6	3766205.1	102.7	0.00	3.95	1.86	YES	HROFDY
L0000584	0	0.98130E-07	413562.1	3766204.0	102.8	0.00	3.95	1.86	YES	HROFDY
L0000585	0	0.98130E-07	413570.5	3766203.0	102.8	0.00	3.95	1.86	YES	HROFDY
L0000586	0	0.98130E-07	413579.0	3766201.9	102.9	0.00	3.95	1.86	YES	HROFDY
L0000587	0	0.98130E-07	413587.4	3766200.9	103.0	0.00	3.95	1.86	YES	HROFDY
L0000588	0	0.98130E-07	413590.5	3766195.3	103.5	0.00	3.95	1.86	YES	HROFDY

L0000589	0	0.98130E-07	413590.2	3766186.8	104.1	0.00	3.95	1.86	YES	HROFDY
L0000590	0	0.98130E-07	413589.8	3766178.3	104.8	0.00	3.95	1.86	YES	HROFDY
L0000591	0	0.98130E-07	413589.5	3766169.8	105.5	0.00	3.95	1.86	YES	HROFDY
L0000592	0	0.98130E-07	413589.2	3766161.3	106.2	0.00	3.95	1.86	YES	HROFDY
L0000593	0	0.98130E-07	413588.8	3766152.8	106.7	0.00	3.95	1.86	YES	HROFDY
L0000594	0	0.98130E-07	413588.5	3766144.3	106.7	0.00	3.95	1.86	YES	HROFDY
L0000595	0	0.98130E-07	413588.2	3766135.8	106.7	0.00	3.95	1.86	YES	HROFDY
L0000596	0	0.98130E-07	413587.9	3766127.3	106.7	0.00	3.95	1.86	YES	HROFDY
L0000597	0	0.98130E-07	413587.5	3766118.9	106.7	0.00	3.95	1.86	YES	HROFDY
L0000598	0	0.98130E-07	413587.2	3766110.4	106.7	0.00	3.95	1.86	YES	HROFDY
L0000599	0	0.98130E-07	413586.9	3766101.9	106.7	0.00	3.95	1.86	YES	HROFDY
L0000600	0	0.98130E-07	413585.3	3766094.0	106.7	0.00	3.95	1.86	YES	HROFDY
L0000601	0	0.98130E-07	413578.4	3766089.1	106.6	0.00	3.95	1.86	YES	HROFDY
L0000602	0	0.98130E-07	413571.4	3766084.2	106.5	0.00	3.95	1.86	YES	HROFDY
L0000603	0	0.98130E-07	413564.5	3766079.3	106.4	0.00	3.95	1.86	YES	HROFDY
L0000604	0	0.98130E-07	413556.2	3766079.0	106.3	0.00	3.95	1.86	YES	HROFDY
L0000605	0	0.98130E-07	413547.7	3766079.2	106.2	0.00	3.95	1.86	YES	HROFDY
L0000606	0	0.98130E-07	413541.6	3766081.5	106.1	0.00	3.95	1.86	YES	HROFDY
L0000607	0	0.98130E-07	413542.9	3766089.9	106.1	0.00	3.95	1.86	YES	HROFDY
L0000608	0	0.98130E-07	413544.2	3766098.3	106.2	0.00	3.95	1.86	YES	HROFDY
L0000609	0	0.98130E-07	413545.5	3766106.7	106.2	0.00	3.95	1.86	YES	HROFDY
L0000610	0	0.98130E-07	413546.8	3766115.1	106.2	0.00	3.95	1.86	YES	HROFDY
L0000611	0	0.98130E-07	413546.1	3766113.9	106.2	0.00	3.95	1.86	YES	HROFDY
L0000612	0	0.98130E-07	413543.9	3766105.7	106.2	0.00	3.95	1.86	YES	HROFDY
L0000613	0	0.98130E-07	413541.7	3766097.5	106.1	0.00	3.95	1.86	YES	HROFDY
L0000614	0	0.98130E-07	413539.4	3766089.3	106.1	0.00	3.95	1.86	YES	HROFDY
L0000615	0	0.98130E-07	413537.2	3766081.1	106.1	0.00	3.95	1.86	YES	HROFDY
L0000616	0	0.98130E-07	413535.0	3766072.9	106.0	0.00	3.95	1.86	YES	HROFDY
L0000617	0	0.98130E-07	413532.8	3766064.7	106.0	0.00	3.95	1.86	YES	HROFDY
L0000618	0	0.98130E-07	413530.5	3766056.5	105.6	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000619	0	0.98130E-07	413528.3	3766048.3	105.2	0.00	3.95	1.86	YES	HROFDY
L0000620	0	0.98130E-07	413532.8	3766050.3	105.3	0.00	3.95	1.86	YES	HROFDY
L0000621	0	0.98130E-07	413539.5	3766055.6	105.7	0.00	3.95	1.86	YES	HROFDY
L0000622	0	0.98130E-07	413546.1	3766060.9	106.1	0.00	3.95	1.86	YES	HROFDY
L0000623	0	0.98130E-07	413552.7	3766066.2	106.3	0.00	3.95	1.86	YES	HROFDY
L0000624	0	0.98130E-07	413559.4	3766071.5	106.4	0.00	3.95	1.86	YES	HROFDY
L0000625	0	0.98130E-07	413566.0	3766076.8	106.5	0.00	3.95	1.86	YES	HROFDY
L0000626	0	0.98130E-07	413572.6	3766082.2	106.5	0.00	3.95	1.86	YES	HROFDY
L0000627	0	0.98130E-07	413579.3	3766087.5	106.6	0.00	3.95	1.86	YES	HROFDY
L0000628	0	0.98130E-07	413585.9	3766092.8	106.7	0.00	3.95	1.86	YES	HROFDY
L0000629	0	0.98130E-07	413590.7	3766090.4	106.8	0.00	3.95	1.86	YES	HROFDY
L0000630	0	0.98130E-07	413594.2	3766082.6	106.8	0.00	3.95	1.86	YES	HROFDY
L0000631	0	0.98130E-07	413597.6	3766074.9	106.9	0.00	3.95	1.86	YES	HROFDY
L0000632	0	0.98130E-07	413601.1	3766067.1	106.9	0.00	3.95	1.86	YES	HROFDY
L0000633	0	0.98130E-07	413604.6	3766059.4	106.8	0.00	3.95	1.86	YES	HROFDY
L0000634	0	0.98130E-07	413608.0	3766051.6	106.4	0.00	3.95	1.86	YES	HROFDY
L0000635	0	0.98130E-07	413611.5	3766043.8	106.1	0.00	3.95	1.86	YES	HROFDY
L0000636	0	0.98130E-07	413615.0	3766036.1	105.7	0.00	3.95	1.86	YES	HROFDY
L0000637	0	0.98130E-07	413615.8	3766034.5	105.6	0.00	3.95	1.86	YES	HROFDY
L0000638	0	0.98130E-07	413612.5	3766042.3	106.0	0.00	3.95	1.86	YES	HROFDY

L0000639	0	0.98130E-07	413609.2	3766050.2	106.4	0.00	3.95	1.86	YES	HROFDY
L0000640	0	0.98130E-07	413605.9	3766058.0	106.8	0.00	3.95	1.86	YES	HROFDY
L0000641	0	0.98130E-07	413602.6	3766065.8	106.9	0.00	3.95	1.86	YES	HROFDY
L0000642	0	0.98130E-07	413599.3	3766073.7	106.9	0.00	3.95	1.86	YES	HROFDY
L0000643	0	0.98130E-07	413596.0	3766081.5	106.8	0.00	3.95	1.86	YES	HROFDY
L0000644	0	0.98130E-07	413592.7	3766089.3	106.8	0.00	3.95	1.86	YES	HROFDY
L0000645	0	0.98130E-07	413591.3	3766096.7	106.8	0.00	3.95	1.86	YES	HROFDY
L0000646	0	0.98130E-07	413597.8	3766102.2	106.9	0.00	3.95	1.86	YES	HROFDY
L0000647	0	0.98130E-07	413604.3	3766107.6	106.9	0.00	3.95	1.86	YES	HROFDY
L0000648	0	0.98130E-07	413610.8	3766113.1	107.0	0.00	3.95	1.86	YES	HROFDY
L0000649	0	0.98130E-07	413617.3	3766118.5	107.0	0.00	3.95	1.86	YES	HROFDY
L0000650	0	0.98130E-07	413623.8	3766124.0	106.9	0.00	3.95	1.86	YES	HROFDY
L0000651	0	0.98130E-07	413630.3	3766129.5	106.9	0.00	3.95	1.86	YES	HROFDY
L0000652	0	0.98130E-07	413627.0	3766126.8	106.9	0.00	3.95	1.86	YES	HROFDY
L0000653	0	0.98130E-07	413620.4	3766121.4	107.0	0.00	3.95	1.86	YES	HROFDY
L0000654	0	0.98130E-07	413613.8	3766116.0	107.0	0.00	3.95	1.86	YES	HROFDY
L0000655	0	0.98130E-07	413607.2	3766110.7	107.0	0.00	3.95	1.86	YES	HROFDY
L0000656	0	0.98130E-07	413600.6	3766105.3	106.9	0.00	3.95	1.86	YES	HROFDY
L0000657	0	0.98130E-07	413594.0	3766100.0	106.8	0.00	3.95	1.86	YES	HROFDY
L0000658	0	0.98130E-07	413588.8	3766097.3	106.7	0.00	3.95	1.86	YES	HROFDY

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000659	0	0.98130E-07	413589.3	3766105.8	106.8	0.00	3.95	1.86	YES	HROFDY
L0000660	0	0.98130E-07	413589.9	3766114.2	106.8	0.00	3.95	1.86	YES	HROFDY
L0000661	0	0.98130E-07	413590.5	3766122.7	106.8	0.00	3.95	1.86	YES	HROFDY
L0000662	0	0.98130E-07	413591.1	3766131.2	106.8	0.00	3.95	1.86	YES	HROFDY
L0000663	0	0.98130E-07	413591.7	3766139.7	106.8	0.00	3.95	1.86	YES	HROFDY
L0000664	0	0.98130E-07	413592.2	3766148.2	106.8	0.00	3.95	1.86	YES	HROFDY
L0000665	0	0.98130E-07	413592.8	3766156.6	106.6	0.00	3.95	1.86	YES	HROFDY
L0000666	0	0.98130E-07	413593.4	3766165.1	105.9	0.00	3.95	1.86	YES	HROFDY
L0000667	0	0.98130E-07	413594.0	3766173.6	105.2	0.00	3.95	1.86	YES	HROFDY
L0000668	0	0.98130E-07	413594.6	3766182.1	104.5	0.00	3.95	1.86	YES	HROFDY
L0000669	0	0.98130E-07	413595.1	3766190.6	103.8	0.00	3.95	1.86	YES	HROFDY
L0000670	0	0.98130E-07	413595.7	3766199.1	103.1	0.00	3.95	1.86	YES	HROFDY
L0000671	0	0.98130E-07	413599.1	3766204.3	102.7	0.00	3.95	1.86	YES	HROFDY
L0000672	0	0.98130E-07	413607.6	3766203.6	102.8	0.00	3.95	1.86	YES	HROFDY
L0000673	0	0.98130E-07	413616.0	3766202.9	102.7	0.00	3.95	1.86	YES	HROFDY
L0000674	0	0.98130E-07	413624.5	3766202.2	102.6	0.00	3.95	1.86	YES	HROFDY
L0000675	0	0.98130E-07	413629.2	3766206.2	102.1	0.00	3.95	1.86	YES	HROFDY
L0000676	0	0.98130E-07	413630.6	3766214.6	101.3	0.00	3.95	1.86	YES	HROFDY
L0000677	0	0.98130E-07	413631.9	3766223.0	100.5	0.00	3.95	1.86	YES	HROFDY
L0000678	0	0.98130E-07	413632.1	3766223.6	100.5	0.00	3.95	1.86	YES	HROFDY
L0000679	0	0.98130E-07	413631.0	3766215.2	101.3	0.00	3.95	1.86	YES	HROFDY
L0000680	0	0.98130E-07	413630.0	3766206.8	102.0	0.00	3.95	1.86	YES	HROFDY
L0000681	0	0.86390E-07	413603.1	3766286.3	99.1	0.00	3.95	1.86	YES	HROFDY
L0000682	0	0.86390E-07	413611.5	3766285.6	99.0	0.00	3.95	1.86	YES	HROFDY
L0000683	0	0.86390E-07	413620.0	3766284.9	98.9	0.00	3.95	1.86	YES	HROFDY
L0000684	0	0.86390E-07	413628.5	3766284.2	98.8	0.00	3.95	1.86	YES	HROFDY
L0000685	0	0.86390E-07	413636.9	3766283.6	98.7	0.00	3.95	1.86	YES	HROFDY
L0000686	0	0.86390E-07	413645.4	3766282.9	98.6	0.00	3.95	1.86	YES	HROFDY
L0000687	0	0.86390E-07	413653.9	3766282.2	98.5	0.00	3.95	1.86	YES	HROFDY
L0000688	0	0.86390E-07	413662.4	3766281.5	98.4	0.00	3.95	1.86	YES	HROFDY

L0000689	0	0.86390E-07	413670.8	3766280.8	98.3	0.00	3.95	1.86	YES	HROFDY
L0000690	0	0.86390E-07	413679.3	3766280.1	98.2	0.00	3.95	1.86	YES	HROFDY
L0000691	0	0.86390E-07	413687.8	3766279.4	98.1	0.00	3.95	1.86	YES	HROFDY
L0000692	0	0.86390E-07	413696.2	3766278.7	98.1	0.00	3.95	1.86	YES	HROFDY
L0000693	0	0.86390E-07	413703.1	3766280.5	98.2	0.00	3.95	1.86	YES	HROFDY
L0000694	0	0.86390E-07	413703.9	3766288.9	98.5	0.00	3.95	1.86	YES	HROFDY
L0000695	0	0.86390E-07	413704.7	3766297.4	98.8	0.00	3.95	1.86	YES	HROFDY
L0000696	0	0.86390E-07	413705.4	3766305.9	99.1	0.00	3.95	1.86	YES	HROFDY
L0000697	0	0.86390E-07	413706.2	3766314.3	99.4	0.00	3.95	1.86	YES	HROFDY
L0000698	0	0.86390E-07	413706.9	3766322.8	99.7	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000699	0	0.86390E-07	413707.7	3766331.3	100.0	0.00	3.95	1.86	YES	HROFDY
L0000700	0	0.86390E-07	413708.5	3766339.7	100.4	0.00	3.95	1.86	YES	HROFDY
L0000701	0	0.86390E-07	413709.2	3766348.2	100.9	0.00	3.95	1.86	YES	HROFDY
L0000702	0	0.86390E-07	413710.0	3766356.7	101.4	0.00	3.95	1.86	YES	HROFDY
L0000703	0	0.86390E-07	413710.8	3766365.1	102.0	0.00	3.95	1.86	YES	HROFDY
L0000704	0	0.86390E-07	413711.5	3766373.6	102.5	0.00	3.95	1.86	YES	HROFDY
L0000705	0	0.86390E-07	413712.3	3766382.1	103.0	0.00	3.95	1.86	YES	HROFDY
L0000706	0	0.86390E-07	413713.0	3766390.5	103.5	0.00	3.95	1.86	YES	HROFDY
L0000707	0	0.86390E-07	413713.8	3766399.0	104.1	0.00	3.95	1.86	YES	HROFDY
L0000708	0	0.86390E-07	413714.6	3766407.5	104.6	0.00	3.95	1.86	YES	HROFDY
L0000709	0	0.86390E-07	413715.3	3766415.9	105.1	0.00	3.95	1.86	YES	HROFDY
L0000710	0	0.86390E-07	413716.1	3766424.4	105.6	0.00	3.95	1.86	YES	HROFDY
L0000711	0	0.86390E-07	413716.8	3766432.9	106.0	0.00	3.95	1.86	YES	HROFDY
L0000712	0	0.86390E-07	413717.6	3766441.3	106.0	0.00	3.95	1.86	YES	HROFDY
L0000713	0	0.86390E-07	413718.4	3766449.8	106.0	0.00	3.95	1.86	YES	HROFDY
L0000714	0	0.86390E-07	413719.1	3766458.3	106.0	0.00	3.95	1.86	YES	HROFDY
L0000715	0	0.86390E-07	413719.9	3766466.7	106.1	0.00	3.95	1.86	YES	HROFDY
L0000716	0	0.86390E-07	413720.7	3766475.2	106.1	0.00	3.95	1.86	YES	HROFDY
L0000717	0	0.86390E-07	413721.4	3766483.7	106.1	0.00	3.95	1.86	YES	HROFDY
L0000718	0	0.86390E-07	413722.0	3766492.1	106.2	0.00	3.95	1.86	YES	HROFDY
L0000719	0	0.86390E-07	413722.4	3766500.6	106.2	0.00	3.95	1.86	YES	HROFDY
L0000720	0	0.86390E-07	413722.8	3766509.1	106.3	0.00	3.95	1.86	YES	HROFDY
L0000721	0	0.86390E-07	413723.3	3766517.6	106.3	0.00	3.95	1.86	YES	HROFDY
L0000722	0	0.86390E-07	413723.7	3766526.1	106.5	0.00	3.95	1.86	YES	HROFDY
L0000723	0	0.86390E-07	413724.2	3766534.6	107.2	0.00	3.95	1.86	YES	HROFDY
L0000724	0	0.86390E-07	413724.6	3766543.1	107.8	0.00	3.95	1.86	YES	HROFDY
L0000725	0	0.86390E-07	413725.1	3766551.6	108.4	0.00	3.95	1.86	YES	HROFDY
L0000726	0	0.86390E-07	413725.5	3766560.0	109.0	0.00	3.95	1.86	YES	HROFDY
L0000727	0	0.43310E-07	413729.8	3766561.9	109.3	0.00	3.95	1.86	YES	HROFDY
L0000728	0	0.43310E-07	413738.3	3766561.9	109.5	0.00	3.95	1.86	YES	HROFDY
L0000729	0	0.43310E-07	413746.8	3766561.9	109.7	0.00	3.95	1.86	YES	HROFDY
L0000730	0	0.43310E-07	413755.3	3766561.9	109.9	0.00	3.95	1.86	YES	HROFDY
L0000731	0	0.43310E-07	413763.8	3766561.9	110.1	0.00	3.95	1.86	YES	HROFDY
L0000732	0	0.43310E-07	413772.3	3766561.9	110.2	0.00	3.95	1.86	YES	HROFDY
L0000733	0	0.43310E-07	413780.8	3766561.9	110.3	0.00	3.95	1.86	YES	HROFDY
L0000734	0	0.43310E-07	413789.3	3766561.9	110.3	0.00	3.95	1.86	YES	HROFDY
L0000735	0	0.43310E-07	413797.8	3766561.9	110.4	0.00	3.95	1.86	YES	HROFDY
L0000736	0	0.43310E-07	413806.3	3766561.9	110.5	0.00	3.95	1.86	YES	HROFDY
L0000737	0	0.43310E-07	413814.8	3766561.9	110.6	0.00	3.95	1.86	YES	HROFDY
L0000738	0	0.43310E-07	413823.3	3766561.9	110.7	0.00	3.95	1.86	YES	HROFDY

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000739	0	0.43310E-07	413831.8	3766561.9	110.8	0.00	3.95	1.86	YES	HROFDY
L0000740	0	0.43310E-07	413840.3	3766561.4	110.8	0.00	3.95	1.86	YES	HROFDY
L0000741	0	0.43310E-07	413848.8	3766560.8	110.9	0.00	3.95	1.86	YES	HROFDY
L0000742	0	0.43310E-07	413857.3	3766560.3	111.0	0.00	3.95	1.86	YES	HROFDY
L0000743	0	0.43310E-07	413865.7	3766559.7	111.2	0.00	3.95	1.86	YES	HROFDY
L0000744	0	0.43310E-07	413874.2	3766559.1	111.3	0.00	3.95	1.86	YES	HROFDY
L0000745	0	0.43310E-07	413882.7	3766558.5	111.4	0.00	3.95	1.86	YES	HROFDY
L0000746	0	0.43310E-07	413891.2	3766557.9	111.5	0.00	3.95	1.86	YES	HROFDY
L0000747	0	0.43310E-07	413899.6	3766557.0	111.7	0.00	3.95	1.86	YES	HROFDY
L0000748	0	0.43310E-07	413908.1	3766556.1	111.8	0.00	3.95	1.86	YES	HROFDY
L0000749	0	0.43310E-07	413916.5	3766555.2	111.9	0.00	3.95	1.86	YES	HROFDY
L0000750	0	0.43310E-07	413925.0	3766554.3	112.1	0.00	3.95	1.86	YES	HROFDY
L0000751	0	0.43310E-07	413933.4	3766553.4	112.2	0.00	3.95	1.86	YES	HROFDY
L0000752	0	0.43310E-07	413941.9	3766552.5	112.4	0.00	3.95	1.86	YES	HROFDY
L0000753	0	0.43310E-07	413950.3	3766551.6	112.5	0.00	3.95	1.86	YES	HROFDY
L0000754	0	0.43310E-07	413958.8	3766550.7	112.7	0.00	3.95	1.86	YES	HROFDY
L0000755	0	0.43310E-07	413967.2	3766549.8	112.8	0.00	3.95	1.86	YES	HROFDY
L0000756	0	0.43310E-07	413975.7	3766548.9	113.0	0.00	3.95	1.86	YES	HROFDY
L0000757	0	0.43310E-07	413984.2	3766548.0	113.2	0.00	3.95	1.86	YES	HROFDY
L0000758	0	0.43310E-07	413992.6	3766547.1	113.3	0.00	3.95	1.86	YES	HROFDY
L0000759	0	0.43310E-07	414001.1	3766546.2	113.5	0.00	3.95	1.86	YES	HROFDY
L0000760	0	0.43310E-07	414009.5	3766545.3	113.5	0.00	3.95	1.86	YES	HROFDY
L0000761	0	0.43310E-07	414018.0	3766544.5	113.6	0.00	3.95	1.86	YES	HROFDY
L0000762	0	0.43290E-07	413715.6	3766561.4	108.9	0.00	3.95	1.86	YES	HROFDY
L0000763	0	0.43290E-07	413707.1	3766562.0	108.8	0.00	3.95	1.86	YES	HROFDY
L0000764	0	0.43290E-07	413698.7	3766562.6	108.6	0.00	3.95	1.86	YES	HROFDY
L0000765	0	0.43290E-07	413690.2	3766563.3	108.5	0.00	3.95	1.86	YES	HROFDY
L0000766	0	0.43290E-07	413681.7	3766563.9	108.4	0.00	3.95	1.86	YES	HROFDY
L0000767	0	0.43290E-07	413673.2	3766564.5	108.3	0.00	3.95	1.86	YES	HROFDY
L0000768	0	0.43290E-07	413664.8	3766565.1	108.2	0.00	3.95	1.86	YES	HROFDY
L0000769	0	0.43290E-07	413656.3	3766565.7	108.2	0.00	3.95	1.86	YES	HROFDY
L0000770	0	0.43290E-07	413647.8	3766566.3	108.1	0.00	3.95	1.86	YES	HROFDY
L0000771	0	0.43290E-07	413639.3	3766566.9	108.0	0.00	3.95	1.86	YES	HROFDY
L0000772	0	0.43290E-07	413630.8	3766567.5	108.0	0.00	3.95	1.86	YES	HROFDY
L0000773	0	0.43290E-07	413622.4	3766568.1	107.9	0.00	3.95	1.86	YES	HROFDY
L0000774	0	0.43290E-07	413613.9	3766568.7	107.8	0.00	3.95	1.86	YES	HROFDY
L0000775	0	0.43290E-07	413605.4	3766569.4	107.7	0.00	3.95	1.86	YES	HROFDY
L0000776	0	0.43290E-07	413596.9	3766570.0	107.4	0.00	3.95	1.86	YES	HROFDY
L0000777	0	0.43290E-07	413588.5	3766570.6	107.2	0.00	3.95	1.86	YES	HROFDY
L0000778	0	0.43290E-07	413580.0	3766571.2	107.0	0.00	3.95	1.86	YES	HROFDY

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000779	0	0.43290E-07	413571.5	3766571.8	106.7	0.00	3.95	1.86	YES	HROFDY
L0000780	0	0.43290E-07	413563.0	3766572.4	106.5	0.00	3.95	1.86	YES	HROFDY
L0000781	0	0.43290E-07	413554.5	3766573.0	106.2	0.00	3.95	1.86	YES	HROFDY
L0000782	0	0.43290E-07	413546.1	3766573.6	105.9	0.00	3.95	1.86	YES	HROFDY
L0000783	0	0.43290E-07	413537.6	3766574.2	105.7	0.00	3.95	1.86	YES	HROFDY
L0000784	0	0.43290E-07	413529.1	3766574.9	105.4	0.00	3.95	1.86	YES	HROFDY
L0000785	0	0.43290E-07	413520.6	3766575.5	105.2	0.00	3.95	1.86	YES	HROFDY
L0000786	0	0.43290E-07	413512.2	3766576.1	105.0	0.00	3.95	1.86	YES	HROFDY
L0000787	0	0.43290E-07	413503.7	3766576.7	104.7	0.00	3.95	1.86	YES	HROFDY
L0000788	0	0.43290E-07	413495.2	3766577.3	104.5	0.00	3.95	1.86	YES	HROFDY
L0000789	0	0.43290E-07	413486.7	3766577.9	104.2	0.00	3.95	1.86	YES	HROFDY
L0000790	0	0.43290E-07	413478.2	3766578.5	104.0	0.00	3.95	1.86	YES	HROFDY
L0000791	0	0.43290E-07	413469.8	3766579.1	103.7	0.00	3.95	1.86	YES	HROFDY
L0000792	0	0.43290E-07	413461.3	3766579.7	103.5	0.00	3.95	1.86	YES	HROFDY
L0000793	0	0.43290E-07	413452.8	3766580.3	103.3	0.00	3.95	1.86	YES	HROFDY
L0000794	0	0.43290E-07	413444.3	3766581.0	103.2	0.00	3.95	1.86	YES	HROFDY
L0000795	0	0.43290E-07	413435.8	3766581.6	103.0	0.00	3.95	1.86	YES	HROFDY
L0000796	0	0.43290E-07	413427.4	3766582.2	102.9	0.00	3.95	1.86	YES	HROFDY
L0000797	0	0.43290E-07	413418.9	3766582.8	102.7	0.00	3.95	1.86	YES	HROFDY
L0000798	0	0.43290E-07	413410.4	3766583.4	102.6	0.00	3.95	1.86	YES	HROFDY
L0000799	0	0.43290E-07	413401.9	3766584.0	102.4	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	L0000539 , L0000540 , L0000541 , L0000542 , L0000543 , L0000544 , L0000545 , L0000546 ,
	L0000547 , L0000548 , L0000549 , L0000550 , L0000551 , L0000552 , L0000553 , L0000554 ,
	L0000555 , L0000556 , L0000557 , L0000558 , L0000559 , L0000560 , L0000561 , L0000562 ,
	L0000563 , L0000564 , L0000565 , L0000566 , L0000567 , L0000568 , L0000569 , L0000570 ,
	L0000571 , L0000572 , L0000573 , L0000574 , L0000575 , L0000576 , L0000577 , L0000578 ,
	L0000579 , L0000580 , L0000581 , L0000582 , L0000583 , L0000584 , L0000585 , L0000586 ,
	L0000587 , L0000588 , L0000589 , L0000590 , L0000591 , L0000592 , L0000593 , L0000594 ,
	L0000595 , L0000596 , L0000597 , L0000598 , L0000599 , L0000600 , L0000601 , L0000602 ,

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             L0000603    , L0000604    , L0000605    , L0000606    , L0000607    , L0000608    , L0000609    ,
L0000610    ,

             L0000611    , L0000612    , L0000613    , L0000614    , L0000615    , L0000616    , L0000617    ,
L0000618    ,

             L0000619    , L0000620    , L0000621    , L0000622    , L0000623    , L0000624    , L0000625    ,
L0000626    ,

             L0000627    , L0000628    , L0000629    , L0000630    , L0000631    , L0000632    , L0000633    ,
L0000634    ,

             L0000635    , L0000636    , L0000637    , L0000638    , L0000639    , L0000640    , L0000641    ,
L0000642    ,

             L0000643    , L0000644    , L0000645    , L0000646    , L0000647    , L0000648    , L0000649    ,
L0000650    ,

             L0000651    , L0000652    , L0000653    , L0000654    , L0000655    , L0000656    , L0000657    ,
L0000658    ,

             L0000659    , L0000660    , L0000661    , L0000662    , L0000663    , L0000664    , L0000665    ,
L0000666    ,

             L0000667    , L0000668    , L0000669    , L0000670    , L0000671    , L0000672    , L0000673    ,
L0000674    ,

             L0000675    , L0000676    , L0000677    , L0000678    , L0000679    , L0000680    , L0000681    ,
L0000682    ,

             L0000683    , L0000684    , L0000685    , L0000686    , L0000687    , L0000688    , L0000689    ,
L0000690    ,

             L0000691    , L0000692    , L0000693    , L0000694    , L0000695    , L0000696    , L0000697    ,
L0000698    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                            SOURCE IDs
 -----------                                            ----------


             L0000699    , L0000700    , L0000701    , L0000702    , L0000703    , L0000704    , L0000705    ,
L0000706    ,

             L0000707    , L0000708    , L0000709    , L0000710    , L0000711    , L0000712    , L0000713    ,
L0000714    ,

             L0000715    , L0000716    , L0000717    , L0000718    , L0000719    , L0000720    , L0000721    ,
L0000722    ,

             L0000723    , L0000724    , L0000725    , L0000726    , L0000727    , L0000728    , L0000729    ,
L0000730    ,

             L0000731    , L0000732    , L0000733    , L0000734    , L0000735    , L0000736    , L0000737    ,
L0000738    ,

             L0000739    , L0000740    , L0000741    , L0000742    , L0000743    , L0000744    , L0000745    ,
L0000746    ,
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             L0000747    , L0000748    , L0000749    , L0000750    , L0000751    , L0000752    , L0000753    ,
L0000754    ,

             L0000755    , L0000756    , L0000757    , L0000758    , L0000759    , L0000760    , L0000761    ,
L0000762    ,

             L0000763    , L0000764    , L0000765    , L0000766    , L0000767    , L0000768    , L0000769    ,
L0000770    ,

             L0000771    , L0000772    , L0000773    , L0000774    , L0000775    , L0000776    , L0000777    ,
L0000778    ,

             L0000779    , L0000780    , L0000781    , L0000782    , L0000783    , L0000784    , L0000785    ,
L0000786    ,

             L0000787    , L0000788    , L0000789    , L0000790    , L0000791    , L0000792    , L0000793    ,
L0000794    ,

             L0000795    , L0000796    , L0000797    , L0000798    , L0000799    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


              9862049.   L0000539    , L0000540    , L0000541    , L0000542    , L0000543    , L0000544    ,
L0000545    ,
 L0000546    ,

             L0000547    , L0000548    , L0000549    , L0000550    , L0000551    , L0000552    , L0000553    ,
L0000554    ,

             L0000555    , L0000556    , L0000557    , L0000558    , L0000559    , L0000560    , L0000561    ,
L0000562    ,

             L0000563    , L0000564    , L0000565    , L0000566    , L0000567    , L0000568    , L0000569    ,
L0000570    ,

             L0000571    , L0000572    , L0000573    , L0000574    , L0000575    , L0000576    , L0000577    ,
L0000578    ,

             L0000579    , L0000580    , L0000581    , L0000582    , L0000583    , L0000584    , L0000585    ,
L0000586    ,

             L0000587    , L0000588    , L0000589    , L0000590    , L0000591    , L0000592    , L0000593    ,
L0000594    ,

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L0000602    ,

             L0000603    , L0000604    , L0000605    , L0000606    , L0000607    , L0000608    , L0000609    ,
L0000610    ,

             L0000611    , L0000612    , L0000613    , L0000614    , L0000615    , L0000616    , L0000617    ,
L0000618    ,

             L0000619    , L0000620    , L0000621    , L0000622    , L0000623    , L0000624    , L0000625    ,
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L0000626    ,

            L0000627    , L0000628    , L0000629    , L0000630    , L0000631    , L0000632    , L0000633    ,
L0000634    ,

            L0000635    , L0000636    , L0000637    , L0000638    , L0000639    , L0000640    , L0000641    ,
L0000642    ,

            L0000643    , L0000644    , L0000645    , L0000646    , L0000647    , L0000648    , L0000649    ,
L0000650    ,

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L0000658    ,

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L0000666    ,

            L0000667    , L0000668    , L0000669    , L0000670    , L0000671    , L0000672    , L0000673    ,
L0000674    ,

            L0000675    , L0000676    , L0000677    , L0000678    , L0000679    , L0000680    , L0000681    ,
L0000682    ,

            L0000683    , L0000684    , L0000685    , L0000686    , L0000687    , L0000688    , L0000689    ,
L0000690    ,

            L0000691    , L0000692    , L0000693    , L0000694    , L0000695    , L0000696    , L0000697    ,
L0000698    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


            L0000699    , L0000700    , L0000701    , L0000702    , L0000703    , L0000704    , L0000705    ,
L0000706    ,

            L0000707    , L0000708    , L0000709    , L0000710    , L0000711    , L0000712    , L0000713    ,
L0000714    ,

            L0000715    , L0000716    , L0000717    , L0000718    , L0000719    , L0000720    , L0000721    ,
L0000722    ,

            L0000723    , L0000724    , L0000725    , L0000726    , L0000727    , L0000728    , L0000729    ,
L0000730    ,

            L0000731    , L0000732    , L0000733    , L0000734    , L0000735    , L0000736    , L0000737    ,
L0000738    ,

            L0000739    , L0000740    , L0000741    , L0000742    , L0000743    , L0000744    , L0000745    ,
L0000746    ,

            L0000747    , L0000748    , L0000749    , L0000750    , L0000751    , L0000752    , L0000753    ,
L0000754    ,

            L0000755    , L0000756    , L0000757    , L0000758    , L0000759    , L0000760    , L0000761    ,
L0000762    ,
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```
             L0000763    , L0000764    , L0000765    , L0000766    , L0000767    , L0000768    , L0000769    ,
L0000770    ,

             L0000771    , L0000772    , L0000773    , L0000774    , L0000775    , L0000776    , L0000777    ,
L0000778    ,

             L0000779    , L0000780    , L0000781    , L0000782    , L0000783    , L0000784    , L0000785    ,
L0000786    ,

             L0000787    , L0000788    , L0000789    , L0000790    , L0000791    , L0000792    , L0000793    ,
L0000794    ,

             L0000795    , L0000796    , L0000797    , L0000798    , L0000799    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
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 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000539     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000540     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000541     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000542     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000543     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                       ***
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 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000544     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000545     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000546     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000547     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000548     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000549     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000550     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000551     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000552     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000553     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000554     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000555     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000556     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000557     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000558     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000559     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000560     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000561     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000562     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000563     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000564     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000565     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000566     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000567     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000568     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000569     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000570     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000571     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000572     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000573     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  20
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000574     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000575     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000576     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000577     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000578     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  21
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000579     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000580     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000581     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000582     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000583     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000584     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000585     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000586     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000587     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000588     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000589     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00


 SOURCE ID = L0000590     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000591     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000592     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000593     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000594     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000595     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000596     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000597     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000598     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000599     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000600     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000601     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000602     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000603     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0000604     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000605     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000606     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000607     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000608     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
```

- -

```
 SOURCE ID = L0000609     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0000610     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0000611     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0000612     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0000613     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:21:32

   PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000614     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000615     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000616     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000617     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000618     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000619     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000620     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000621     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000622     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000623     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000624     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000625     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000626     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000627     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000628     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000629     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000630     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000631     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000632     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000633     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000634     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000635     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000636     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000637     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000638     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000639     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000640     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000641     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000642     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000643     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000644     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000645     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000646     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000647     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000648     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000649     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000650     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000651     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000652     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000653     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000654     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000655     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000656     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000657     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000658     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000659     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000660     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000661     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000662     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000663     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000664     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000665     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000666     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00


 SOURCE ID = L0000667     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000668     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000669     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000670     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000671     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000672     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000673     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000674     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000675     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000676     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000677     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000678     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000679     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000680     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000681     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000682     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000683     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000684     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000685     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000686     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000687     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000688     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000689     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000690     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000691     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000692     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000693     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:21:32

   PAGE  44
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000694     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000695     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000696     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000697     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000698     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000699     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000700     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000701     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000702     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000703     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000704     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000705     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000706     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000707     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000708     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000709     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000710     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000711     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000712     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000713     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0000714     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000715     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000716     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000717     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000718     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   16:21:32

   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - -


 SOURCE ID = L0000719     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000720     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000721     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000722     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000723     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000724     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000725     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000726     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000727     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000728     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                     ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  51
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000729     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000730     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000731     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000732     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000733     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
   PAGE  52
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000734     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000735     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000736     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000737     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000738     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000739     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000740     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000741     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000742     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000743     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000744     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000745     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000746     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000747     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000748     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000749     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000750     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000751     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000752     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000753     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  56
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000754     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000755     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000756     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000757     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000758     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000759     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000760     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000761     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000762     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000763     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000764     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000765     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000766     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000767     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000768     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:21:32

   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000769     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000770     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000771     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000772     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000773     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:21:32

   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000774     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000775     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000776     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000777     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000778     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  61
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000779     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000780     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000781     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000782     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000783     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:21:32

   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000784     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000785     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000786     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000787     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000788     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000789     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000790     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000791     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000792     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000793     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000794     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000795     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00


 SOURCE ID = L0000796     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000797     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000798     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:21:32

   PAGE  65
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000799     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** DISCRETE CARTESIAN RECEPTORS ***
                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                  (METERS)

     ( 413652.9, 3766310.3,      99.0,     233.0,       0.0);         ( 413593.5, 3766316.6,      99.1,     233.0,
     0.0);
     ( 413509.4, 3765878.8,     105.0,     233.0,       0.0);         ( 413562.5, 3765873.6,     104.8,     233.0,
     0.0);
     ( 413506.2, 3766322.6,      98.9,     233.0,       0.0);         ( 413585.7, 3766518.8,     103.4,     103.4,
     0.0);
     ( 413649.2, 3766515.1,     104.1,     104.1,       0.0);         ( 413627.0, 3766311.1,      99.0,     233.0,
     0.0);
     ( 413682.2, 3766359.4,     101.3,     233.0,       0.0);         ( 413675.7, 3766459.5,     105.5,     232.0,
     0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  67
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                        (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1

               NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                     *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                     (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   pico8.sfc                                                                    Met Version:
14134
   Profile file:   pico8.PFL
   Surface format: FREE
```

Profile format: FREE

Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2008 Year: 2008

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
08	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	285.4	5.5
08	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	284.2	5.5
08	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	283.8	5.5
08	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	284.2	5.5
08	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	284.9	5.5
08	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	285.4	5.5
08	01	01	1	07	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	285.9	5.5
08	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	0.54	999.00	999.	-9.0	286.4	5.5
08	01	01	1	09	28.6	-9.000	-9.000	-9.000	61.	-999.	-99999.0	0.34	1.00	0.32	999.00	999.	-9.0	287.0	5.5
08	01	01	1	10	83.5	-9.000	-9.000	-9.000	164.	-999.	-99999.0	0.34	1.00	0.24	999.00	999.	-9.0	289.2	5.5
08	01	01	1	11	131.2	-9.000	-9.000	-9.000	427.	-999.	-99999.0	0.34	1.00	0.21	999.00	999.	-9.0	292.5	5.5
08	01	01	1	12	130.6	-9.000	-9.000	-9.000	620.	-999.	-99999.0	0.34	1.00	0.20	999.00	999.	-9.0	294.2	5.5
08	01	01	1	13	112.1	-9.000	-9.000	-9.000	723.	-999.	-99999.0	0.34	1.00	0.20	999.00	999.	-9.0	294.9	5.5
08	01	01	1	14	86.7	-9.000	-9.000	-9.000	762.	-999.	-99999.0	0.34	1.00	0.21	999.00	999.	-9.0	294.9	5.5
08	01	01	1	15	37.3	-9.000	-9.000	-9.000	778.	-999.	-99999.0	0.34	1.00	0.25	999.00	999.	-9.0	294.2	5.5
08	01	01	1	16	12.7	-9.000	-9.000	-9.000	783.	-999.	-99999.0	0.34	1.00	0.33	999.00	999.	-9.0	293.8	5.5
08	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	0.60	999.00	999.	-9.0	292.5	5.5
08	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	291.4	5.5
08	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	290.9	5.5
08	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.8	5.5
08	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.1	5.5
08	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.1	5.5
08	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.8	5.5
08	01	01	1	24	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	287.5	5.5

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
08	01	01	01	5.5	0	-999.	-99.00	285.4	99.0	-99.00	-99.00
08	01	01	01	9.1	1	-999.	-99.00	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc ***
06/03/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000539 , L0000540 , L0000541 , L0000542 , L0000543 ,
L0000544 , L0000545 , L0000546 , L0000547 , L0000548 , L0000549 , L0000550 , L0000551 ,
L0000552 , L0000553 , L0000554 , L0000555 , L0000556 , L0000557 , L0000558 , L0000559 ,
L0000560 , L0000561 , L0000562 , L0000563 , L0000564 , L0000565 , L0000566 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
413652.90	3766310.34	0.00139	413593.55	3766316.64	0.00135
413509.37	3765878.81	0.00026	413562.54	3765873.58	0.00026
413506.23	3766322.62	0.00075	413585.72	3766518.85	0.00029
413649.24	3766515.14	0.00034	413626.98	3766311.14	0.00147
413682.16	3766359.36	0.00087	413675.67	3766459.50	0.00047

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc ***
06/03/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

NETWORK GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00147 AT	(413626.98, 3766311.14, 99.02, 233.00, 0.00)	DC
	2ND HIGHEST VALUE IS	0.00139 AT	(413652.90, 3766310.34, 99.04, 233.00, 0.00)	DC
	3RD HIGHEST VALUE IS	0.00135 AT	(413593.55, 3766316.64, 99.06, 233.00, 0.00)	DC
	4TH HIGHEST VALUE IS	0.00087 AT	(413682.16, 3766359.36, 101.27, 233.00, 0.00)	DC
	5TH HIGHEST VALUE IS	0.00075 AT	(413506.23, 3766322.62, 98.90, 233.00, 0.00)	DC
	6TH HIGHEST VALUE IS	0.00047 AT	(413675.67, 3766459.50, 105.46, 232.00, 0.00)	DC

```
          7TH HIGHEST VALUE IS       0.00034 AT (  413649.24,  3766515.14,   104.09,   104.09,    0.00)  DC

          8TH HIGHEST VALUE IS       0.00029 AT (  413585.72,  3766518.85,   103.43,   103.43,    0.00)  DC

          9TH HIGHEST VALUE IS       0.00026 AT (  413562.54,  3765873.58,   104.83,   233.00,    0.00)  DC

         10TH HIGHEST VALUE IS       0.00026 AT (  413509.37,  3765878.81,   104.97,   233.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\Worker\Worker.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of         1222 Informational Message(s)

 A Total of        43848 Hours Were Processed

 A Total of           13 Calm Hours Identified

 A Total of         1209 Missing Hours Identified (  2.76 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 6/3/2016
** File: C:\Lakes\AERMOD View\Echelon\School\School.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
```

```
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Echelon\School\School.isc
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 9862049
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL School.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Building A On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001826
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413555.837, 3766243.730, 100.06, 0.00, 3.95
** 413555.037, 3766226.136, 106.41, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000800     VOLUME   413555.644 3766239.484 100.26
   LOCATION L0000801     VOLUME   413555.258 3766230.993 100.87
** End of LINE VOLUME Source ID = SLINE1
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC Building B On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001876
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413551.415, 3766167.645, 106.15, 0.00, 3.95
** 413552.125, 3766185.565, 106.26, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000802     VOLUME   413551.583 3766171.892 105.06
   LOCATION L0000803     VOLUME   413551.920 3766180.385 104.46
** End of LINE VOLUME Source ID = SLINE2
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC Building C On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001876
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413547.446, 3766118.198, 105.62, 0.00, 3.95
** 413545.850, 3766100.633, 105.73, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000804     VOLUME   413547.062 3766113.966 106.20
```

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   LOCATION L0000805     VOLUME   413546.292 3766105.501 106.19
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC Building G On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001876
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413619.111, 3766045.827, 102.25, 0.00, 3.95
** 413617.515, 3766028.262, 102.22, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0000806     VOLUME   413618.727 3766041.595 106.04
   LOCATION L0000807     VOLUME   413617.957 3766033.130 105.57
** End of LINE VOLUME Source ID = SLINE7
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Building D On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001876
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413520.902, 3766048.637, 101.64, 0.00, 3.95
** 413538.424, 3766046.639, 101.67, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0000808     VOLUME   413525.125 3766048.155 105.14
   LOCATION L0000809     VOLUME   413533.570 3766047.192 105.19
** End of LINE VOLUME Source ID = SLINE4
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC Building E On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001876
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413626.458, 3766219.150, 106.56, 0.00, 3.95
** 413643.980, 3766217.152, 106.47, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0000810     VOLUME   413630.681 3766218.668 100.96
   LOCATION L0000811     VOLUME   413639.126 3766217.705 100.85
** End of LINE VOLUME Source ID = SLINE5
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC Building F On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001876
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413620.103, 3766131.599, 106.63, 0.00, 3.95
** 413637.625, 3766129.601, 106.75, 0.00, 3.95
** ----------------------------------------------------------------------
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                                                        Echelon
   LOCATION L0000812     VOLUME   413624.326 3766131.117 106.90
   LOCATION L0000813     VOLUME   413632.771 3766130.154 106.85
** End of LINE VOLUME Source ID = SLINE6
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002863
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 21
** 413596.091, 3766273.513, 99.36, 0.00, 3.95
** 413592.033, 3766201.823, 106.63, 0.00, 3.95
** 413552.806, 3766205.881, 106.36, 0.00, 3.95
** 413555.512, 3766243.079, 100.06, 0.00, 3.95
** 413550.101, 3766169.359, 106.14, 0.00, 3.95
** 413552.806, 3766205.205, 106.36, 0.00, 3.95
** 413590.680, 3766200.470, 106.63, 0.00, 3.95
** 413586.622, 3766094.964, 106.56, 0.00, 3.95
** 413563.627, 3766078.732, 106.21, 0.00, 3.95
** 413541.309, 3766079.409, 105.88, 0.00, 3.95
** 413547.396, 3766118.635, 105.62, 0.00, 3.95
** 413527.782, 3766046.269, 101.65, 0.00, 3.95
** 413588.651, 3766094.964, 106.58, 0.00, 3.95
** 413617.057, 3766031.390, 102.22, 0.00, 3.95
** 413590.004, 3766095.640, 106.59, 0.00, 3.95
** 413631.936, 3766130.809, 106.71, 0.00, 3.95
** 413588.651, 3766095.640, 106.58, 0.00, 3.95
** 413596.091, 3766204.528, 106.63, 0.00, 3.95
** 413628.554, 3766201.823, 106.62, 0.00, 3.95
** 413632.612, 3766227.523, 106.53, 0.00, 3.95
** 413629.231, 3766201.147, 106.62, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000814     VOLUME   413595.851 3766269.270 99.14
   LOCATION L0000815     VOLUME   413595.370 3766260.783 99.16
   LOCATION L0000816     VOLUME   413594.890 3766252.297 99.19
   LOCATION L0000817     VOLUME   413594.410 3766243.811 99.46
   LOCATION L0000818     VOLUME   413593.929 3766235.324 100.16
   LOCATION L0000819     VOLUME   413593.449 3766226.838 100.86
   LOCATION L0000820     VOLUME   413592.968 3766218.351 101.56
   LOCATION L0000821     VOLUME   413592.488 3766209.865 102.26
   LOCATION L0000822     VOLUME   413591.590 3766201.869 102.91
   LOCATION L0000823     VOLUME   413583.135 3766202.743 102.85
   LOCATION L0000824     VOLUME   413574.680 3766203.618 102.79
   LOCATION L0000825     VOLUME   413566.226 3766204.493 102.74
   LOCATION L0000826     VOLUME   413557.771 3766205.367 102.69
   LOCATION L0000827     VOLUME   413553.061 3766209.381 102.42
   LOCATION L0000828     VOLUME   413553.677 3766217.858 101.82
   LOCATION L0000829     VOLUME   413554.294 3766226.336 101.21
   LOCATION L0000830     VOLUME   413554.910 3766234.813 100.60
   LOCATION L0000831     VOLUME   413555.496 3766242.866 100.03
   LOCATION L0000832     VOLUME   413554.874 3766234.389 100.63
   LOCATION L0000833     VOLUME   413554.252 3766225.912 101.24
   LOCATION L0000834     VOLUME   413553.629 3766217.435 101.85
   LOCATION L0000835     VOLUME   413553.007 3766208.957 102.45
   LOCATION L0000836     VOLUME   413552.385 3766200.480 103.05
   LOCATION L0000837     VOLUME   413551.763 3766192.003 103.64
   LOCATION L0000838     VOLUME   413551.141 3766183.526 104.24
   LOCATION L0000839     VOLUME   413550.518 3766175.049 104.83
   LOCATION L0000840     VOLUME   413550.311 3766172.147 105.03
   LOCATION L0000841     VOLUME   413550.951 3766180.623 104.44
   LOCATION L0000842     VOLUME   413551.591 3766189.099 103.85
   LOCATION L0000843     VOLUME   413552.230 3766197.575 103.25
   LOCATION L0000844     VOLUME   413553.648 3766205.099 102.72
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LOCATION	L0000845	VOLUME	413562.083	3766204.045	102.78
LOCATION	L0000846	VOLUME	413570.517	3766202.991	102.85
LOCATION	L0000847	VOLUME	413578.951	3766201.936	102.92
LOCATION	L0000848	VOLUME	413587.386	3766200.882	102.99
LOCATION	L0000849	VOLUME	413590.481	3766195.294	103.45
LOCATION	L0000850	VOLUME	413590.155	3766186.801	104.13
LOCATION	L0000851	VOLUME	413589.828	3766178.307	104.82
LOCATION	L0000852	VOLUME	413589.501	3766169.813	105.51
LOCATION	L0000853	VOLUME	413589.174	3766161.319	106.19
LOCATION	L0000854	VOLUME	413588.848	3766152.826	106.73
LOCATION	L0000855	VOLUME	413588.521	3766144.332	106.73
LOCATION	L0000856	VOLUME	413588.194	3766135.838	106.73
LOCATION	L0000857	VOLUME	413587.868	3766127.345	106.72
LOCATION	L0000858	VOLUME	413587.541	3766118.851	106.72
LOCATION	L0000859	VOLUME	413587.214	3766110.357	106.72
LOCATION	L0000860	VOLUME	413586.888	3766101.863	106.71
LOCATION	L0000861	VOLUME	413585.319	3766094.044	106.70
LOCATION	L0000862	VOLUME	413578.375	3766089.142	106.61
LOCATION	L0000863	VOLUME	413571.430	3766084.240	106.52
LOCATION	L0000864	VOLUME	413564.486	3766079.338	106.43
LOCATION	L0000865	VOLUME	413556.182	3766078.958	106.32
LOCATION	L0000866	VOLUME	413547.686	3766079.215	106.21
LOCATION	L0000867	VOLUME	413541.634	3766081.503	106.13
LOCATION	L0000868	VOLUME	413542.937	3766089.903	106.15
LOCATION	L0000869	VOLUME	413544.241	3766098.302	106.16
LOCATION	L0000870	VOLUME	413545.544	3766106.702	106.18
LOCATION	L0000871	VOLUME	413546.847	3766115.101	106.19
LOCATION	L0000872	VOLUME	413546.108	3766113.883	106.18
LOCATION	L0000873	VOLUME	413543.884	3766105.679	106.16
LOCATION	L0000874	VOLUME	413541.661	3766097.475	106.13
LOCATION	L0000875	VOLUME	413539.437	3766089.271	106.10
LOCATION	L0000876	VOLUME	413537.214	3766081.067	106.07
LOCATION	L0000877	VOLUME	413534.990	3766072.863	106.04
LOCATION	L0000878	VOLUME	413532.767	3766064.659	106.02
LOCATION	L0000879	VOLUME	413530.543	3766056.455	105.65
LOCATION	L0000880	VOLUME	413528.319	3766048.251	105.18
LOCATION	L0000881	VOLUME	413532.816	3766050.296	105.35
LOCATION	L0000882	VOLUME	413539.453	3766055.606	105.72
LOCATION	L0000883	VOLUME	413546.091	3766060.916	106.10
LOCATION	L0000884	VOLUME	413552.728	3766066.225	106.28
LOCATION	L0000885	VOLUME	413559.366	3766071.535	106.36
LOCATION	L0000886	VOLUME	413566.003	3766076.845	106.45
LOCATION	L0000887	VOLUME	413572.640	3766082.155	106.53
LOCATION	L0000888	VOLUME	413579.278	3766087.465	106.62
LOCATION	L0000889	VOLUME	413585.915	3766092.775	106.70
LOCATION	L0000890	VOLUME	413590.689	3766090.403	106.77
LOCATION	L0000891	VOLUME	413594.157	3766082.642	106.81
LOCATION	L0000892	VOLUME	413597.624	3766074.881	106.86
LOCATION	L0000893	VOLUME	413601.092	3766067.121	106.90
LOCATION	L0000894	VOLUME	413604.559	3766059.360	106.81
LOCATION	L0000895	VOLUME	413608.027	3766051.600	106.43
LOCATION	L0000896	VOLUME	413611.494	3766043.839	106.06
LOCATION	L0000897	VOLUME	413614.962	3766036.079	105.69
LOCATION	L0000898	VOLUME	413615.751	3766034.490	105.61
LOCATION	L0000899	VOLUME	413612.453	3766042.324	105.99
LOCATION	L0000900	VOLUME	413609.154	3766050.158	106.37
LOCATION	L0000901	VOLUME	413605.856	3766057.992	106.75
LOCATION	L0000902	VOLUME	413602.557	3766065.826	106.92
LOCATION	L0000903	VOLUME	413599.259	3766073.660	106.88
LOCATION	L0000904	VOLUME	413595.960	3766081.494	106.84
LOCATION	L0000905	VOLUME	413592.662	3766089.328	106.79
LOCATION	L0000906	VOLUME	413591.269	3766096.701	106.77
LOCATION	L0000907	VOLUME	413597.781	3766102.163	106.86
LOCATION	L0000908	VOLUME	413604.294	3766107.625	106.94
LOCATION	L0000909	VOLUME	413610.807	3766113.088	107.00
LOCATION	L0000910	VOLUME	413617.319	3766118.550	106.98
LOCATION	L0000911	VOLUME	413623.832	3766124.012	106.93

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   LOCATION L0000912     VOLUME   413630.344 3766129.474 106.87
   LOCATION L0000913     VOLUME   413626.951 3766126.759 106.91
   LOCATION L0000914     VOLUME   413620.354 3766121.399 106.96
   LOCATION L0000915     VOLUME   413613.757 3766116.039 106.99
   LOCATION L0000916     VOLUME   413607.160 3766110.679 106.98
   LOCATION L0000917     VOLUME   413600.563 3766105.319 106.89
   LOCATION L0000918     VOLUME   413593.966 3766099.959 106.81
   LOCATION L0000919     VOLUME   413588.764 3766097.288 106.74
   LOCATION L0000920     VOLUME   413589.343 3766105.768 106.75
   LOCATION L0000921     VOLUME   413589.923 3766114.249 106.75
   LOCATION L0000922     VOLUME   413590.502 3766122.729 106.76
   LOCATION L0000923     VOLUME   413591.081 3766131.209 106.77
   LOCATION L0000924     VOLUME   413591.661 3766139.689 106.77
   LOCATION L0000925     VOLUME   413592.240 3766148.170 106.78
   LOCATION L0000926     VOLUME   413592.820 3766156.650 106.61
   LOCATION L0000927     VOLUME   413593.399 3766165.130 105.92
   LOCATION L0000928     VOLUME   413593.978 3766173.610 105.23
   LOCATION L0000929     VOLUME   413594.558 3766182.091 104.54
   LOCATION L0000930     VOLUME   413595.137 3766190.571 103.84
   LOCATION L0000931     VOLUME   413595.717 3766199.051 103.14
   LOCATION L0000932     VOLUME   413599.090 3766204.278 102.70
   LOCATION L0000933     VOLUME   413607.561 3766203.572 102.75
   LOCATION L0000934     VOLUME   413616.032 3766202.866 102.67
   LOCATION L0000935     VOLUME   413624.502 3766202.161 102.56
   LOCATION L0000936     VOLUME   413629.246 3766206.203 102.10
   LOCATION L0000937     VOLUME   413630.572 3766214.599 101.33
   LOCATION L0000938     VOLUME   413631.897 3766222.995 100.55
   LOCATION L0000939     VOLUME   413632.114 3766223.640 100.48
   LOCATION L0000940     VOLUME   413631.033 3766215.209 101.26
   LOCATION L0000941     VOLUME   413629.953 3766206.778 102.04
** End of LINE VOLUME Source ID = SLINE8
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC 100% Echelon to Amar
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 7.968E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 413598.822, 3766286.660, 99.45, 0.00, 3.95
** 413696.610, 3766278.710, 97.66, 0.00, 3.95
** 413702.970, 3766278.710, 97.68, 0.00, 3.95
** 413721.654, 3766486.212, 105.40, 0.00, 3.95
** 413725.667, 3766563.285, 106.07, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0000942     VOLUME   413603.058 3766286.315 99.06
   LOCATION L0000943     VOLUME   413611.530 3766285.627 98.99
   LOCATION L0000944     VOLUME   413620.002 3766284.938 98.91
   LOCATION L0000945     VOLUME   413628.474 3766284.249 98.82
   LOCATION L0000946     VOLUME   413636.946 3766283.560 98.73
   LOCATION L0000947     VOLUME   413645.418 3766282.872 98.63
   LOCATION L0000948     VOLUME   413653.890 3766282.183 98.53
   LOCATION L0000949     VOLUME   413662.362 3766281.494 98.42
   LOCATION L0000950     VOLUME   413670.834 3766280.805 98.31
   LOCATION L0000951     VOLUME   413679.306 3766280.116 98.20
   LOCATION L0000952     VOLUME   413687.778 3766279.428 98.08
   LOCATION L0000953     VOLUME   413696.250 3766278.739 98.10
   LOCATION L0000954     VOLUME   413703.130 3766280.481 98.20
   LOCATION L0000955     VOLUME   413703.892 3766288.947 98.50
   LOCATION L0000956     VOLUME   413704.654 3766297.413 98.79
   LOCATION L0000957     VOLUME   413705.417 3766305.878 99.10
   LOCATION L0000958     VOLUME   413706.179 3766314.344 99.40
   LOCATION L0000959     VOLUME   413706.941 3766322.810 99.70
   LOCATION L0000960     VOLUME   413707.703 3766331.276 100.01
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   LOCATION L0000961     VOLUME   413708.466 3766339.741 100.36
   LOCATION L0000962     VOLUME   413709.228 3766348.207 100.89
   LOCATION L0000963     VOLUME   413709.990 3766356.673 101.42
   LOCATION L0000964     VOLUME   413710.752 3766365.139 101.95
   LOCATION L0000965     VOLUME   413711.515 3766373.604 102.48
   LOCATION L0000966     VOLUME   413712.277 3766382.070 103.01
   LOCATION L0000967     VOLUME   413713.039 3766390.536 103.53
   LOCATION L0000968     VOLUME   413713.801 3766399.002 104.06
   LOCATION L0000969     VOLUME   413714.564 3766407.467 104.58
   LOCATION L0000970     VOLUME   413715.326 3766415.933 105.10
   LOCATION L0000971     VOLUME   413716.088 3766424.399 105.62
   LOCATION L0000972     VOLUME   413716.850 3766432.865 106.00
   LOCATION L0000973     VOLUME   413717.613 3766441.330 106.01
   LOCATION L0000974     VOLUME   413718.375 3766449.796 106.03
   LOCATION L0000975     VOLUME   413719.137 3766458.262 106.05
   LOCATION L0000976     VOLUME   413719.899 3766466.728 106.08
   LOCATION L0000977     VOLUME   413720.661 3766475.193 106.11
   LOCATION L0000978     VOLUME   413721.424 3766483.659 106.15
   LOCATION L0000979     VOLUME   413721.962 3766492.141 106.18
   LOCATION L0000980     VOLUME   413722.404 3766500.629 106.22
   LOCATION L0000981     VOLUME   413722.846 3766509.118 106.26
   LOCATION L0000982     VOLUME   413723.288 3766517.606 106.30
   LOCATION L0000983     VOLUME   413723.730 3766526.095 106.55
   LOCATION L0000984     VOLUME   413724.172 3766534.583 107.18
   LOCATION L0000985     VOLUME   413724.614 3766543.072 107.80
   LOCATION L0000986     VOLUME   413725.056 3766551.560 108.42
   LOCATION L0000987     VOLUME   413725.498 3766560.049 109.04
** End of LINE VOLUME Source ID = SLINE9
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC 50% Amar Rd. to/from the east
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 3.039E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 4
** 413725.565, 3766561.947, 106.07, 0.00, 3.95
** 413832.664, 3766561.947, 109.48, 0.00, 3.95
** 413889.858, 3766558.022, 110.18, 0.00, 3.95
** 414022.190, 3766544.003, 113.64, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0000988     VOLUME   413729.815 3766561.947 109.27
   LOCATION L0000989     VOLUME   413738.315 3766561.947 109.47
   LOCATION L0000990     VOLUME   413746.815 3766561.947 109.67
   LOCATION L0000991     VOLUME   413755.315 3766561.947 109.86
   LOCATION L0000992     VOLUME   413763.815 3766561.947 110.06
   LOCATION L0000993     VOLUME   413772.315 3766561.947 110.18
   LOCATION L0000994     VOLUME   413780.815 3766561.947 110.27
   LOCATION L0000995     VOLUME   413789.315 3766561.947 110.35
   LOCATION L0000996     VOLUME   413797.815 3766561.947 110.43
   LOCATION L0000997     VOLUME   413806.315 3766561.947 110.51
   LOCATION L0000998     VOLUME   413814.815 3766561.947 110.59
   LOCATION L0000999     VOLUME   413823.315 3766561.947 110.67
   LOCATION L0001000     VOLUME   413831.815 3766561.947 110.75
   LOCATION L0001001     VOLUME   413840.297 3766561.423 110.82
   LOCATION L0001002     VOLUME   413848.777 3766560.841 110.92
   LOCATION L0001003     VOLUME   413857.257 3766560.259 111.04
   LOCATION L0001004     VOLUME   413865.737 3766559.677 111.16
   LOCATION L0001005     VOLUME   413874.217 3766559.095 111.28
   LOCATION L0001006     VOLUME   413882.697 3766558.513 111.41
   LOCATION L0001007     VOLUME   413891.173 3766557.882 111.53
   LOCATION L0001008     VOLUME   413899.626 3766556.987 111.66
   LOCATION L0001009     VOLUME   413908.079 3766556.092 111.80
   LOCATION L0001010     VOLUME   413916.531 3766555.196 111.93
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                                                    Echelon
   LOCATION L0001011     VOLUME   413924.984 3766554.301 112.07
   LOCATION L0001012     VOLUME   413933.437 3766553.405 112.22
   LOCATION L0001013     VOLUME   413941.889 3766552.510 112.36
   LOCATION L0001014     VOLUME   413950.342 3766551.614 112.52
   LOCATION L0001015     VOLUME   413958.795 3766550.719 112.67
   LOCATION L0001016     VOLUME   413967.248 3766549.824 112.83
   LOCATION L0001017     VOLUME   413975.700 3766548.928 112.99
   LOCATION L0001018     VOLUME   413984.153 3766548.033 113.16
   LOCATION L0001019     VOLUME   413992.606 3766547.137 113.33
   LOCATION L0001020     VOLUME   414001.058 3766546.242 113.46
   LOCATION L0001021     VOLUME   414009.511 3766545.347 113.53
   LOCATION L0001022     VOLUME   414017.964 3766544.451 113.60
** End of LINE VOLUME Source ID = SLINE10
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC 50% Amar Rd. to/from the west
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 3.297E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 413719.864, 3766561.117, 105.87, 0.00, 3.95
** 413397.900, 3766584.298, 103.50, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0001023     VOLUME   413715.625 3766561.422 108.91
   LOCATION L0001024     VOLUME   413707.147 3766562.032 108.75
   LOCATION L0001025     VOLUME   413698.668 3766562.643 108.61
   LOCATION L0001026     VOLUME   413690.190 3766563.253 108.46
   LOCATION L0001027     VOLUME   413681.712 3766563.864 108.38
   LOCATION L0001028     VOLUME   413673.234 3766564.474 108.31
   LOCATION L0001029     VOLUME   413664.756 3766565.084 108.24
   LOCATION L0001030     VOLUME   413656.278 3766565.695 108.17
   LOCATION L0001031     VOLUME   413647.800 3766566.305 108.10
   LOCATION L0001032     VOLUME   413639.322 3766566.916 108.03
   LOCATION L0001033     VOLUME   413630.844 3766567.526 107.97
   LOCATION L0001034     VOLUME   413622.366 3766568.137 107.91
   LOCATION L0001035     VOLUME   413613.888 3766568.747 107.85
   LOCATION L0001036     VOLUME   413605.410 3766569.357 107.66
   LOCATION L0001037     VOLUME   413596.932 3766569.968 107.44
   LOCATION L0001038     VOLUME   413588.454 3766570.578 107.21
   LOCATION L0001039     VOLUME   413579.976 3766571.189 106.97
   LOCATION L0001040     VOLUME   413571.498 3766571.799 106.73
   LOCATION L0001041     VOLUME   413563.020 3766572.410 106.47
   LOCATION L0001042     VOLUME   413554.542 3766573.020 106.21
   LOCATION L0001043     VOLUME   413546.064 3766573.630 105.94
   LOCATION L0001044     VOLUME   413537.585 3766574.241 105.66
   LOCATION L0001045     VOLUME   413529.107 3766574.851 105.43
   LOCATION L0001046     VOLUME   413520.629 3766575.462 105.20
   LOCATION L0001047     VOLUME   413512.151 3766576.072 104.97
   LOCATION L0001048     VOLUME   413503.673 3766576.682 104.73
   LOCATION L0001049     VOLUME   413495.195 3766577.293 104.49
   LOCATION L0001050     VOLUME   413486.717 3766577.903 104.24
   LOCATION L0001051     VOLUME   413478.239 3766578.514 103.99
   LOCATION L0001052     VOLUME   413469.761 3766579.124 103.73
   LOCATION L0001053     VOLUME   413461.283 3766579.735 103.47
   LOCATION L0001054     VOLUME   413452.805 3766580.345 103.31
   LOCATION L0001055     VOLUME   413444.327 3766580.955 103.17
   LOCATION L0001056     VOLUME   413435.849 3766581.566 103.03
   LOCATION L0001057     VOLUME   413427.371 3766582.176 102.88
   LOCATION L0001058     VOLUME   413418.893 3766582.787 102.73
   LOCATION L0001059     VOLUME   413410.415 3766583.397 102.59
   LOCATION L0001060     VOLUME   413401.937 3766584.008 102.43
** End of LINE VOLUME Source ID = SLINE11
** Source Parameters **
```

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** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000800     0.00000913      0.00      3.95      1.86
   SRCPARAM L0000801     0.00000913      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0000802     0.00000938      0.00      3.95      1.86
   SRCPARAM L0000803     0.00000938      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0000804     0.00000938      0.00      3.95      1.86
   SRCPARAM L0000805     0.00000938      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0000806     0.00000938      0.00      3.95      1.86
   SRCPARAM L0000807     0.00000938      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0000808     0.00000938      0.00      3.95      1.86
   SRCPARAM L0000809     0.00000938      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0000810     0.00000938      0.00      3.95      1.86
   SRCPARAM L0000811     0.00000938      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0000812     0.00000938      0.00      3.95      1.86
   SRCPARAM L0000813     0.00000938      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0000814     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000815     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000816     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000817     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000818     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000819     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000820     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000821     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000822     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000823     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000824     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000825     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000826     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000827     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000828     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000829     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000830     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000831     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000832     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000833     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000834     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000835     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000836     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000837     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000838     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000839     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000840     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000841     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000842     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000843     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000844     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000845     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000846     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000847     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000848     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000849     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000850     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000851     0.0000002237      0.00      3.95      1.86
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SRCPARAM	L0000852	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000853	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000854	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000855	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000856	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000857	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000858	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000859	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000860	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000861	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000862	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000863	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000864	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000865	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000866	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000867	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000868	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000869	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000870	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000871	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000872	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000873	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000874	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000875	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000876	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000877	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000878	0.0000002237	0.00	3.95	1.86
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SRCPARAM	L0000881	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000882	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000883	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000884	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000885	0.0000002237	0.00	3.95	1.86
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SRCPARAM	L0000887	0.0000002237	0.00	3.95	1.86
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SRCPARAM	L0000889	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000890	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000891	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000892	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000893	0.0000002237	0.00	3.95	1.86
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SRCPARAM	L0000895	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000896	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000897	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000898	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000899	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000900	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000901	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000902	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000903	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000904	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000905	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000906	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000907	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000908	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000909	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000910	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000911	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000912	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000913	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000914	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000915	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000916	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000917	0.0000002237	0.00	3.95	1.86
SRCPARAM	L0000918	0.0000002237	0.00	3.95	1.86

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   SRCPARAM L0000919     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000920     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000921     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000922     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000923     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000924     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000925     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000926     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000927     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000928     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000929     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000930     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000931     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000932     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000933     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000934     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000935     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000936     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000937     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000938     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000939     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000940     0.0000002237      0.00      3.95      1.86
   SRCPARAM L0000941     0.0000002237      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0000942     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000943     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000944     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000945     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000946     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000947     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000948     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000949     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000950     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000951     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000952     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000953     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000954     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000955     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000956     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000957     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000958     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000959     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000960     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000961     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000962     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000963     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000964     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000965     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000966     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000967     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000968     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000969     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000970     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000971     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000972     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000973     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000974     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000975     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000976     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000977     0.0000001732      0.00      3.95      1.86
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   SRCPARAM L0000979     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000980     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000981     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000982     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000983     0.0000001732      0.00      3.95      1.86
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                                                    Echelon
   SRCPARAM L0000984     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000985     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000986     0.0000001732      0.00      3.95      1.86
   SRCPARAM L0000987     0.0000001732      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0000988     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000989     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000990     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000991     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000992     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000993     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000994     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000995     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000996     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000997     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000998     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0000999     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001000     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001001     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001002     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001003     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001004     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001005     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001006     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001007     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001008     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001009     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001010     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001011     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001012     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001013     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001014     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001015     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001016     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001017     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001018     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001019     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001020     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001021     0.00000008683      0.00      3.95      1.86
   SRCPARAM L0001022     0.00000008683      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0001023     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001024     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001025     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001026     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001027     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001028     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001029     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001030     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001031     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001032     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001033     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001034     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001035     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001036     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001037     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001038     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001039     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001040     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001041     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001042     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001043     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001044     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001045     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001046     0.00000008676      0.00      3.95      1.86
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                                                        Echelon
   SRCPARAM L0001047     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001048     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001049     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001050     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001051     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001052     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001053     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001054     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001055     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001056     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001057     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001058     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001059     0.00000008676      0.00      3.95      1.86
   SRCPARAM L0001060     0.00000008676      0.00      3.95      1.86
** ----------------------------------------------------------------------
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "12 hour exposure"
   EMISFACT L0000800     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000800     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000800     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000800     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000801     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000801     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000801     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000801     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000802     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000802     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000802     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000802     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000803     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000803     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000803     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000803     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000804     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000804     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000804     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000804     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000805     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000805     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000805     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000805     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000806     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000806     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000806     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000806     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000807     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000807     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000807     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000807     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000808     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000808     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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   EMISFACT L0000809     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000809     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000809     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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   EMISFACT L0000810     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000810     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000810     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000810     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000811     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000811     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000811     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000811     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000812     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000812     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000813     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000813     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000813     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000813     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000814     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000814     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000814     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000814     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000815     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000815     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000815     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000815     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000816     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000816     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000816     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000817     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000817     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000819     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000819     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000820     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000820     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000821     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000822     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000822     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000823     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000824     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000826     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000826     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000828     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000828     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000828     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000829     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000830     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000830     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000832     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000832     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000836     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000853     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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   EMISFACT L0001049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001049     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001051     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001051     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001053     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001053     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001054     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001054     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001054     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001054     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001055     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001055     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001055     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001055     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001056     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001056     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001056     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001056     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001057     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001057     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001057     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001057     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001058     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001058     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001058     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001058     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001059     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001059     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001059     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001059     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001060     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001060     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001060     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001060     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
```

```
   INCLUDED School.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE pico8.sfc
   PROFFILE pico8.PFL
   SURFDATA 0 2008
   UAIRDATA 3190 2008
   SITEDATA 99999 2008
   PROFBASE 58.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL SCHOOL.AD\AN00GALL.PLT 31
   SUMMFILE School.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                     ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   16:30:42

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   261 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions
```

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: DPM

**Model Calculates ANNUAL Averages Only

**This Run Includes: 261 Source(s);   1 Source Group(s); and   16 Receptor(s)

```
               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:    261 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)
```

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

```
**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    58.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                 Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =
0.10000E+07
                 Output Units   = MICROGRAMS/M**3
```

**Approximate Storage Requirements of Model =   3.7 MB of RAM.

**Detailed Error/Message File: School.err

**File for Summary of Results: School.sum

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   16:30:42

   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000800	0	0.91300E-05	413555.6	3766239.5	100.3	0.00	3.95	1.86	YES	HROFDY
L0000801	0	0.91300E-05	413555.3	3766231.0	100.9	0.00	3.95	1.86	YES	HROFDY
L0000802	0	0.93800E-05	413551.6	3766171.9	105.1	0.00	3.95	1.86	YES	HROFDY
L0000803	0	0.93800E-05	413551.9	3766180.4	104.5	0.00	3.95	1.86	YES	HROFDY
L0000804	0	0.93800E-05	413547.1	3766114.0	106.2	0.00	3.95	1.86	YES	HROFDY
L0000805	0	0.93800E-05	413546.3	3766105.5	106.2	0.00	3.95	1.86	YES	HROFDY
L0000806	0	0.93800E-05	413618.7	3766041.6	106.0	0.00	3.95	1.86	YES	HROFDY
L0000807	0	0.93800E-05	413618.0	3766033.1	105.6	0.00	3.95	1.86	YES	HROFDY
L0000808	0	0.93800E-05	413525.1	3766048.2	105.1	0.00	3.95	1.86	YES	HROFDY

L0000809	0	0.93800E-05	413533.6	3766047.2	105.2	0.00	3.95	1.86	YES	HROFDY
L0000810	0	0.93800E-05	413630.7	3766218.7	101.0	0.00	3.95	1.86	YES	HROFDY
L0000811	0	0.93800E-05	413639.1	3766217.7	100.8	0.00	3.95	1.86	YES	HROFDY
L0000812	0	0.93800E-05	413624.3	3766131.1	106.9	0.00	3.95	1.86	YES	HROFDY
L0000813	0	0.93800E-05	413632.8	3766130.2	106.8	0.00	3.95	1.86	YES	HROFDY
L0000814	0	0.22370E-06	413595.9	3766269.3	99.1	0.00	3.95	1.86	YES	HROFDY
L0000815	0	0.22370E-06	413595.4	3766260.8	99.2	0.00	3.95	1.86	YES	HROFDY
L0000816	0	0.22370E-06	413594.9	3766252.3	99.2	0.00	3.95	1.86	YES	HROFDY
L0000817	0	0.22370E-06	413594.4	3766243.8	99.5	0.00	3.95	1.86	YES	HROFDY
L0000818	0	0.22370E-06	413593.9	3766235.3	100.2	0.00	3.95	1.86	YES	HROFDY
L0000819	0	0.22370E-06	413593.4	3766226.8	100.9	0.00	3.95	1.86	YES	HROFDY
L0000820	0	0.22370E-06	413593.0	3766218.4	101.6	0.00	3.95	1.86	YES	HROFDY
L0000821	0	0.22370E-06	413592.5	3766209.9	102.3	0.00	3.95	1.86	YES	HROFDY
L0000822	0	0.22370E-06	413591.6	3766201.9	102.9	0.00	3.95	1.86	YES	HROFDY
L0000823	0	0.22370E-06	413583.1	3766202.7	102.8	0.00	3.95	1.86	YES	HROFDY
L0000824	0	0.22370E-06	413574.7	3766203.6	102.8	0.00	3.95	1.86	YES	HROFDY
L0000825	0	0.22370E-06	413566.2	3766204.5	102.7	0.00	3.95	1.86	YES	HROFDY
L0000826	0	0.22370E-06	413557.8	3766205.4	102.7	0.00	3.95	1.86	YES	HROFDY
L0000827	0	0.22370E-06	413553.1	3766209.4	102.4	0.00	3.95	1.86	YES	HROFDY
L0000828	0	0.22370E-06	413553.7	3766217.9	101.8	0.00	3.95	1.86	YES	HROFDY
L0000829	0	0.22370E-06	413554.3	3766226.3	101.2	0.00	3.95	1.86	YES	HROFDY
L0000830	0	0.22370E-06	413554.9	3766234.8	100.6	0.00	3.95	1.86	YES	HROFDY
L0000831	0	0.22370E-06	413555.5	3766242.9	100.0	0.00	3.95	1.86	YES	HROFDY
L0000832	0	0.22370E-06	413554.9	3766234.4	100.6	0.00	3.95	1.86	YES	HROFDY
L0000833	0	0.22370E-06	413554.3	3766225.9	101.2	0.00	3.95	1.86	YES	HROFDY
L0000834	0	0.22370E-06	413553.6	3766217.4	101.8	0.00	3.95	1.86	YES	HROFDY
L0000835	0	0.22370E-06	413553.0	3766209.0	102.5	0.00	3.95	1.86	YES	HROFDY
L0000836	0	0.22370E-06	413552.4	3766200.5	103.0	0.00	3.95	1.86	YES	HROFDY
L0000837	0	0.22370E-06	413551.8	3766192.0	103.6	0.00	3.95	1.86	YES	HROFDY
L0000838	0	0.22370E-06	413551.1	3766183.5	104.2	0.00	3.95	1.86	YES	HROFDY
L0000839	0	0.22370E-06	413550.5	3766175.0	104.8	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000840	0	0.22370E-06	413550.3	3766172.1	105.0	0.00	3.95	1.86	YES	HROFDY
L0000841	0	0.22370E-06	413551.0	3766180.6	104.4	0.00	3.95	1.86	YES	HROFDY
L0000842	0	0.22370E-06	413551.6	3766189.1	103.8	0.00	3.95	1.86	YES	HROFDY
L0000843	0	0.22370E-06	413552.2	3766197.6	103.2	0.00	3.95	1.86	YES	HROFDY
L0000844	0	0.22370E-06	413553.6	3766205.1	102.7	0.00	3.95	1.86	YES	HROFDY
L0000845	0	0.22370E-06	413562.1	3766204.0	102.8	0.00	3.95	1.86	YES	HROFDY
L0000846	0	0.22370E-06	413570.5	3766203.0	102.8	0.00	3.95	1.86	YES	HROFDY
L0000847	0	0.22370E-06	413579.0	3766201.9	102.9	0.00	3.95	1.86	YES	HROFDY
L0000848	0	0.22370E-06	413587.4	3766200.9	103.0	0.00	3.95	1.86	YES	HROFDY
L0000849	0	0.22370E-06	413590.5	3766195.3	103.5	0.00	3.95	1.86	YES	HROFDY
L0000850	0	0.22370E-06	413590.2	3766186.8	104.1	0.00	3.95	1.86	YES	HROFDY
L0000851	0	0.22370E-06	413589.8	3766178.3	104.8	0.00	3.95	1.86	YES	HROFDY
L0000852	0	0.22370E-06	413589.5	3766169.8	105.5	0.00	3.95	1.86	YES	HROFDY
L0000853	0	0.22370E-06	413589.2	3766161.3	106.2	0.00	3.95	1.86	YES	HROFDY
L0000854	0	0.22370E-06	413588.8	3766152.8	106.7	0.00	3.95	1.86	YES	HROFDY
L0000855	0	0.22370E-06	413588.5	3766144.3	106.7	0.00	3.95	1.86	YES	HROFDY
L0000856	0	0.22370E-06	413588.2	3766135.8	106.7	0.00	3.95	1.86	YES	HROFDY
L0000857	0	0.22370E-06	413587.9	3766127.3	106.7	0.00	3.95	1.86	YES	HROFDY
L0000858	0	0.22370E-06	413587.5	3766118.9	106.7	0.00	3.95	1.86	YES	HROFDY

L0000859	0	0.22370E-06	413587.2	3766110.4	106.7	0.00	3.95	1.86	YES	HROFDY
L0000860	0	0.22370E-06	413586.9	3766101.9	106.7	0.00	3.95	1.86	YES	HROFDY
L0000861	0	0.22370E-06	413585.3	3766094.0	106.7	0.00	3.95	1.86	YES	HROFDY
L0000862	0	0.22370E-06	413578.4	3766089.1	106.6	0.00	3.95	1.86	YES	HROFDY
L0000863	0	0.22370E-06	413571.4	3766084.2	106.5	0.00	3.95	1.86	YES	HROFDY
L0000864	0	0.22370E-06	413564.5	3766079.3	106.4	0.00	3.95	1.86	YES	HROFDY
L0000865	0	0.22370E-06	413556.2	3766079.0	106.3	0.00	3.95	1.86	YES	HROFDY
L0000866	0	0.22370E-06	413547.7	3766079.2	106.2	0.00	3.95	1.86	YES	HROFDY
L0000867	0	0.22370E-06	413541.6	3766081.5	106.1	0.00	3.95	1.86	YES	HROFDY
L0000868	0	0.22370E-06	413542.9	3766089.9	106.1	0.00	3.95	1.86	YES	HROFDY
L0000869	0	0.22370E-06	413544.2	3766098.3	106.2	0.00	3.95	1.86	YES	HROFDY
L0000870	0	0.22370E-06	413545.5	3766106.7	106.2	0.00	3.95	1.86	YES	HROFDY
L0000871	0	0.22370E-06	413546.8	3766115.1	106.2	0.00	3.95	1.86	YES	HROFDY
L0000872	0	0.22370E-06	413546.1	3766113.9	106.2	0.00	3.95	1.86	YES	HROFDY
L0000873	0	0.22370E-06	413543.9	3766105.7	106.2	0.00	3.95	1.86	YES	HROFDY
L0000874	0	0.22370E-06	413541.7	3766097.5	106.1	0.00	3.95	1.86	YES	HROFDY
L0000875	0	0.22370E-06	413539.4	3766089.3	106.1	0.00	3.95	1.86	YES	HROFDY
L0000876	0	0.22370E-06	413537.2	3766081.1	106.1	0.00	3.95	1.86	YES	HROFDY
L0000877	0	0.22370E-06	413535.0	3766072.9	106.0	0.00	3.95	1.86	YES	HROFDY
L0000878	0	0.22370E-06	413532.8	3766064.7	106.0	0.00	3.95	1.86	YES	HROFDY
L0000879	0	0.22370E-06	413530.5	3766056.5	105.6	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000880	0	0.22370E-06	413528.3	3766048.3	105.2	0.00	3.95	1.86	YES	HROFDY
L0000881	0	0.22370E-06	413532.8	3766050.3	105.3	0.00	3.95	1.86	YES	HROFDY
L0000882	0	0.22370E-06	413539.5	3766055.6	105.7	0.00	3.95	1.86	YES	HROFDY
L0000883	0	0.22370E-06	413546.1	3766060.9	106.1	0.00	3.95	1.86	YES	HROFDY
L0000884	0	0.22370E-06	413552.7	3766066.2	106.3	0.00	3.95	1.86	YES	HROFDY
L0000885	0	0.22370E-06	413559.4	3766071.5	106.4	0.00	3.95	1.86	YES	HROFDY
L0000886	0	0.22370E-06	413566.0	3766076.8	106.5	0.00	3.95	1.86	YES	HROFDY
L0000887	0	0.22370E-06	413572.6	3766082.2	106.5	0.00	3.95	1.86	YES	HROFDY
L0000888	0	0.22370E-06	413579.3	3766087.5	106.6	0.00	3.95	1.86	YES	HROFDY
L0000889	0	0.22370E-06	413585.9	3766092.8	106.7	0.00	3.95	1.86	YES	HROFDY
L0000890	0	0.22370E-06	413590.7	3766090.4	106.8	0.00	3.95	1.86	YES	HROFDY
L0000891	0	0.22370E-06	413594.2	3766082.6	106.8	0.00	3.95	1.86	YES	HROFDY
L0000892	0	0.22370E-06	413597.6	3766074.9	106.9	0.00	3.95	1.86	YES	HROFDY
L0000893	0	0.22370E-06	413601.1	3766067.1	106.9	0.00	3.95	1.86	YES	HROFDY
L0000894	0	0.22370E-06	413604.6	3766059.4	106.8	0.00	3.95	1.86	YES	HROFDY
L0000895	0	0.22370E-06	413608.0	3766051.6	106.4	0.00	3.95	1.86	YES	HROFDY
L0000896	0	0.22370E-06	413611.5	3766043.8	106.1	0.00	3.95	1.86	YES	HROFDY
L0000897	0	0.22370E-06	413615.0	3766036.1	105.7	0.00	3.95	1.86	YES	HROFDY
L0000898	0	0.22370E-06	413615.8	3766034.5	105.6	0.00	3.95	1.86	YES	HROFDY
L0000899	0	0.22370E-06	413612.5	3766042.3	106.0	0.00	3.95	1.86	YES	HROFDY
L0000900	0	0.22370E-06	413609.2	3766050.2	106.4	0.00	3.95	1.86	YES	HROFDY
L0000901	0	0.22370E-06	413605.9	3766058.0	106.8	0.00	3.95	1.86	YES	HROFDY
L0000902	0	0.22370E-06	413602.6	3766065.8	106.9	0.00	3.95	1.86	YES	HROFDY
L0000903	0	0.22370E-06	413599.3	3766073.7	106.9	0.00	3.95	1.86	YES	HROFDY
L0000904	0	0.22370E-06	413596.0	3766081.5	106.8	0.00	3.95	1.86	YES	HROFDY
L0000905	0	0.22370E-06	413592.7	3766089.3	106.8	0.00	3.95	1.86	YES	HROFDY
L0000906	0	0.22370E-06	413591.3	3766096.7	106.8	0.00	3.95	1.86	YES	HROFDY
L0000907	0	0.22370E-06	413597.8	3766102.2	106.9	0.00	3.95	1.86	YES	HROFDY
L0000908	0	0.22370E-06	413604.3	3766107.6	106.9	0.00	3.95	1.86	YES	HROFDY

L0000909	0	0.22370E-06	413610.8	3766113.1	107.0	0.00	3.95	1.86	YES	HROFDY
L0000910	0	0.22370E-06	413617.3	3766118.5	107.0	0.00	3.95	1.86	YES	HROFDY
L0000911	0	0.22370E-06	413623.8	3766124.0	106.9	0.00	3.95	1.86	YES	HROFDY
L0000912	0	0.22370E-06	413630.3	3766129.5	106.9	0.00	3.95	1.86	YES	HROFDY
L0000913	0	0.22370E-06	413627.0	3766126.8	106.9	0.00	3.95	1.86	YES	HROFDY
L0000914	0	0.22370E-06	413620.4	3766121.4	107.0	0.00	3.95	1.86	YES	HROFDY
L0000915	0	0.22370E-06	413613.8	3766116.0	107.0	0.00	3.95	1.86	YES	HROFDY
L0000916	0	0.22370E-06	413607.2	3766110.7	107.0	0.00	3.95	1.86	YES	HROFDY
L0000917	0	0.22370E-06	413600.6	3766105.3	106.9	0.00	3.95	1.86	YES	HROFDY
L0000918	0	0.22370E-06	413594.0	3766100.0	106.8	0.00	3.95	1.86	YES	HROFDY
L0000919	0	0.22370E-06	413588.8	3766097.3	106.7	0.00	3.95	1.86	YES	HROFDY

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000920	0	0.22370E-06	413589.3	3766105.8	106.8	0.00	3.95	1.86	YES	HROFDY
L0000921	0	0.22370E-06	413589.9	3766114.2	106.8	0.00	3.95	1.86	YES	HROFDY
L0000922	0	0.22370E-06	413590.5	3766122.7	106.8	0.00	3.95	1.86	YES	HROFDY
L0000923	0	0.22370E-06	413591.1	3766131.2	106.8	0.00	3.95	1.86	YES	HROFDY
L0000924	0	0.22370E-06	413591.7	3766139.7	106.8	0.00	3.95	1.86	YES	HROFDY
L0000925	0	0.22370E-06	413592.2	3766148.2	106.8	0.00	3.95	1.86	YES	HROFDY
L0000926	0	0.22370E-06	413592.8	3766156.6	106.6	0.00	3.95	1.86	YES	HROFDY
L0000927	0	0.22370E-06	413593.4	3766165.1	105.9	0.00	3.95	1.86	YES	HROFDY
L0000928	0	0.22370E-06	413594.0	3766173.6	105.2	0.00	3.95	1.86	YES	HROFDY
L0000929	0	0.22370E-06	413594.6	3766182.1	104.5	0.00	3.95	1.86	YES	HROFDY
L0000930	0	0.22370E-06	413595.1	3766190.6	103.8	0.00	3.95	1.86	YES	HROFDY
L0000931	0	0.22370E-06	413595.7	3766199.1	103.1	0.00	3.95	1.86	YES	HROFDY
L0000932	0	0.22370E-06	413599.1	3766204.3	102.7	0.00	3.95	1.86	YES	HROFDY
L0000933	0	0.22370E-06	413607.6	3766203.6	102.8	0.00	3.95	1.86	YES	HROFDY
L0000934	0	0.22370E-06	413616.0	3766202.9	102.7	0.00	3.95	1.86	YES	HROFDY
L0000935	0	0.22370E-06	413624.5	3766202.2	102.6	0.00	3.95	1.86	YES	HROFDY
L0000936	0	0.22370E-06	413629.2	3766206.2	102.1	0.00	3.95	1.86	YES	HROFDY
L0000937	0	0.22370E-06	413630.6	3766214.6	101.3	0.00	3.95	1.86	YES	HROFDY
L0000938	0	0.22370E-06	413631.9	3766223.0	100.5	0.00	3.95	1.86	YES	HROFDY
L0000939	0	0.22370E-06	413632.1	3766223.6	100.5	0.00	3.95	1.86	YES	HROFDY
L0000940	0	0.22370E-06	413631.0	3766215.2	101.3	0.00	3.95	1.86	YES	HROFDY
L0000941	0	0.22370E-06	413630.0	3766206.8	102.0	0.00	3.95	1.86	YES	HROFDY
L0000942	0	0.17320E-06	413603.1	3766286.3	99.1	0.00	3.95	1.86	YES	HROFDY
L0000943	0	0.17320E-06	413611.5	3766285.6	99.0	0.00	3.95	1.86	YES	HROFDY
L0000944	0	0.17320E-06	413620.0	3766284.9	98.9	0.00	3.95	1.86	YES	HROFDY
L0000945	0	0.17320E-06	413628.5	3766284.2	98.8	0.00	3.95	1.86	YES	HROFDY
L0000946	0	0.17320E-06	413636.9	3766283.6	98.7	0.00	3.95	1.86	YES	HROFDY
L0000947	0	0.17320E-06	413645.4	3766282.9	98.6	0.00	3.95	1.86	YES	HROFDY
L0000948	0	0.17320E-06	413653.9	3766282.2	98.5	0.00	3.95	1.86	YES	HROFDY
L0000949	0	0.17320E-06	413662.4	3766281.5	98.4	0.00	3.95	1.86	YES	HROFDY
L0000950	0	0.17320E-06	413670.8	3766280.8	98.3	0.00	3.95	1.86	YES	HROFDY
L0000951	0	0.17320E-06	413679.3	3766280.1	98.2	0.00	3.95	1.86	YES	HROFDY
L0000952	0	0.17320E-06	413687.8	3766279.4	98.1	0.00	3.95	1.86	YES	HROFDY
L0000953	0	0.17320E-06	413696.2	3766278.7	98.1	0.00	3.95	1.86	YES	HROFDY
L0000954	0	0.17320E-06	413703.1	3766280.5	98.2	0.00	3.95	1.86	YES	HROFDY
L0000955	0	0.17320E-06	413703.9	3766288.9	98.5	0.00	3.95	1.86	YES	HROFDY
L0000956	0	0.17320E-06	413704.7	3766297.4	98.8	0.00	3.95	1.86	YES	HROFDY
L0000957	0	0.17320E-06	413705.4	3766305.9	99.1	0.00	3.95	1.86	YES	HROFDY
L0000958	0	0.17320E-06	413706.2	3766314.3	99.4	0.00	3.95	1.86	YES	HROFDY

L0000959	0	0.17320E-06	413706.9	3766322.8	99.7	0.00	3.95	1.86	YES	HROFDY

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000960	0	0.17320E-06	413707.7	3766331.3	100.0	0.00	3.95	1.86	YES	HROFDY
L0000961	0	0.17320E-06	413708.5	3766339.7	100.4	0.00	3.95	1.86	YES	HROFDY
L0000962	0	0.17320E-06	413709.2	3766348.2	100.9	0.00	3.95	1.86	YES	HROFDY
L0000963	0	0.17320E-06	413710.0	3766356.7	101.4	0.00	3.95	1.86	YES	HROFDY
L0000964	0	0.17320E-06	413710.8	3766365.1	102.0	0.00	3.95	1.86	YES	HROFDY
L0000965	0	0.17320E-06	413711.5	3766373.6	102.5	0.00	3.95	1.86	YES	HROFDY
L0000966	0	0.17320E-06	413712.3	3766382.1	103.0	0.00	3.95	1.86	YES	HROFDY
L0000967	0	0.17320E-06	413713.0	3766390.5	103.5	0.00	3.95	1.86	YES	HROFDY
L0000968	0	0.17320E-06	413713.8	3766399.0	104.1	0.00	3.95	1.86	YES	HROFDY
L0000969	0	0.17320E-06	413714.6	3766407.5	104.6	0.00	3.95	1.86	YES	HROFDY
L0000970	0	0.17320E-06	413715.3	3766415.9	105.1	0.00	3.95	1.86	YES	HROFDY
L0000971	0	0.17320E-06	413716.1	3766424.4	105.6	0.00	3.95	1.86	YES	HROFDY
L0000972	0	0.17320E-06	413716.8	3766432.9	106.0	0.00	3.95	1.86	YES	HROFDY
L0000973	0	0.17320E-06	413717.6	3766441.3	106.0	0.00	3.95	1.86	YES	HROFDY
L0000974	0	0.17320E-06	413718.4	3766449.8	106.0	0.00	3.95	1.86	YES	HROFDY
L0000975	0	0.17320E-06	413719.1	3766458.3	106.0	0.00	3.95	1.86	YES	HROFDY
L0000976	0	0.17320E-06	413719.9	3766466.7	106.1	0.00	3.95	1.86	YES	HROFDY
L0000977	0	0.17320E-06	413720.7	3766475.2	106.1	0.00	3.95	1.86	YES	HROFDY
L0000978	0	0.17320E-06	413721.4	3766483.7	106.1	0.00	3.95	1.86	YES	HROFDY
L0000979	0	0.17320E-06	413722.0	3766492.1	106.2	0.00	3.95	1.86	YES	HROFDY
L0000980	0	0.17320E-06	413722.4	3766500.6	106.2	0.00	3.95	1.86	YES	HROFDY
L0000981	0	0.17320E-06	413722.8	3766509.1	106.3	0.00	3.95	1.86	YES	HROFDY
L0000982	0	0.17320E-06	413723.3	3766517.6	106.3	0.00	3.95	1.86	YES	HROFDY
L0000983	0	0.17320E-06	413723.7	3766526.1	106.5	0.00	3.95	1.86	YES	HROFDY
L0000984	0	0.17320E-06	413724.2	3766534.6	107.2	0.00	3.95	1.86	YES	HROFDY
L0000985	0	0.17320E-06	413724.6	3766543.1	107.8	0.00	3.95	1.86	YES	HROFDY
L0000986	0	0.17320E-06	413725.1	3766551.6	108.4	0.00	3.95	1.86	YES	HROFDY
L0000987	0	0.17320E-06	413725.5	3766560.0	109.0	0.00	3.95	1.86	YES	HROFDY
L0000988	0	0.86830E-07	413729.8	3766561.9	109.3	0.00	3.95	1.86	YES	HROFDY
L0000989	0	0.86830E-07	413738.3	3766561.9	109.5	0.00	3.95	1.86	YES	HROFDY
L0000990	0	0.86830E-07	413746.8	3766561.9	109.7	0.00	3.95	1.86	YES	HROFDY
L0000991	0	0.86830E-07	413755.3	3766561.9	109.9	0.00	3.95	1.86	YES	HROFDY
L0000992	0	0.86830E-07	413763.8	3766561.9	110.1	0.00	3.95	1.86	YES	HROFDY
L0000993	0	0.86830E-07	413772.3	3766561.9	110.2	0.00	3.95	1.86	YES	HROFDY
L0000994	0	0.86830E-07	413780.8	3766561.9	110.3	0.00	3.95	1.86	YES	HROFDY
L0000995	0	0.86830E-07	413789.3	3766561.9	110.3	0.00	3.95	1.86	YES	HROFDY
L0000996	0	0.86830E-07	413797.8	3766561.9	110.4	0.00	3.95	1.86	YES	HROFDY
L0000997	0	0.86830E-07	413806.3	3766561.9	110.5	0.00	3.95	1.86	YES	HROFDY
L0000998	0	0.86830E-07	413814.8	3766561.9	110.6	0.00	3.95	1.86	YES	HROFDY
L0000999	0	0.86830E-07	413823.3	3766561.9	110.7	0.00	3.95	1.86	YES	HROFDY

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001000	0	0.86830E-07	413831.8	3766561.9	110.8	0.00	3.95	1.86	YES	HROFDY
L0001001	0	0.86830E-07	413840.3	3766561.4	110.8	0.00	3.95	1.86	YES	HROFDY
L0001002	0	0.86830E-07	413848.8	3766560.8	110.9	0.00	3.95	1.86	YES	HROFDY
L0001003	0	0.86830E-07	413857.3	3766560.3	111.0	0.00	3.95	1.86	YES	HROFDY
L0001004	0	0.86830E-07	413865.7	3766559.7	111.2	0.00	3.95	1.86	YES	HROFDY
L0001005	0	0.86830E-07	413874.2	3766559.1	111.3	0.00	3.95	1.86	YES	HROFDY
L0001006	0	0.86830E-07	413882.7	3766558.5	111.4	0.00	3.95	1.86	YES	HROFDY
L0001007	0	0.86830E-07	413891.2	3766557.9	111.5	0.00	3.95	1.86	YES	HROFDY
L0001008	0	0.86830E-07	413899.6	3766557.0	111.7	0.00	3.95	1.86	YES	HROFDY
L0001009	0	0.86830E-07	413908.1	3766556.1	111.8	0.00	3.95	1.86	YES	HROFDY
L0001010	0	0.86830E-07	413916.5	3766555.2	111.9	0.00	3.95	1.86	YES	HROFDY
L0001011	0	0.86830E-07	413925.0	3766554.3	112.1	0.00	3.95	1.86	YES	HROFDY
L0001012	0	0.86830E-07	413933.4	3766553.4	112.2	0.00	3.95	1.86	YES	HROFDY
L0001013	0	0.86830E-07	413941.9	3766552.5	112.4	0.00	3.95	1.86	YES	HROFDY
L0001014	0	0.86830E-07	413950.3	3766551.6	112.5	0.00	3.95	1.86	YES	HROFDY
L0001015	0	0.86830E-07	413958.8	3766550.7	112.7	0.00	3.95	1.86	YES	HROFDY
L0001016	0	0.86830E-07	413967.2	3766549.8	112.8	0.00	3.95	1.86	YES	HROFDY
L0001017	0	0.86830E-07	413975.7	3766548.9	113.0	0.00	3.95	1.86	YES	HROFDY
L0001018	0	0.86830E-07	413984.2	3766548.0	113.2	0.00	3.95	1.86	YES	HROFDY
L0001019	0	0.86830E-07	413992.6	3766547.1	113.3	0.00	3.95	1.86	YES	HROFDY
L0001020	0	0.86830E-07	414001.1	3766546.2	113.5	0.00	3.95	1.86	YES	HROFDY
L0001021	0	0.86830E-07	414009.5	3766545.3	113.5	0.00	3.95	1.86	YES	HROFDY
L0001022	0	0.86830E-07	414018.0	3766544.5	113.6	0.00	3.95	1.86	YES	HROFDY
L0001023	0	0.86760E-07	413715.6	3766561.4	108.9	0.00	3.95	1.86	YES	HROFDY
L0001024	0	0.86760E-07	413707.1	3766562.0	108.8	0.00	3.95	1.86	YES	HROFDY
L0001025	0	0.86760E-07	413698.7	3766562.6	108.6	0.00	3.95	1.86	YES	HROFDY
L0001026	0	0.86760E-07	413690.2	3766563.3	108.5	0.00	3.95	1.86	YES	HROFDY
L0001027	0	0.86760E-07	413681.7	3766563.9	108.4	0.00	3.95	1.86	YES	HROFDY
L0001028	0	0.86760E-07	413673.2	3766564.5	108.3	0.00	3.95	1.86	YES	HROFDY
L0001029	0	0.86760E-07	413664.8	3766565.1	108.2	0.00	3.95	1.86	YES	HROFDY
L0001030	0	0.86760E-07	413656.3	3766565.7	108.2	0.00	3.95	1.86	YES	HROFDY
L0001031	0	0.86760E-07	413647.8	3766566.3	108.1	0.00	3.95	1.86	YES	HROFDY
L0001032	0	0.86760E-07	413639.3	3766566.9	108.0	0.00	3.95	1.86	YES	HROFDY
L0001033	0	0.86760E-07	413630.8	3766567.5	108.0	0.00	3.95	1.86	YES	HROFDY
L0001034	0	0.86760E-07	413622.4	3766568.1	107.9	0.00	3.95	1.86	YES	HROFDY
L0001035	0	0.86760E-07	413613.9	3766568.7	107.8	0.00	3.95	1.86	YES	HROFDY
L0001036	0	0.86760E-07	413605.4	3766569.4	107.7	0.00	3.95	1.86	YES	HROFDY
L0001037	0	0.86760E-07	413596.9	3766570.0	107.4	0.00	3.95	1.86	YES	HROFDY
L0001038	0	0.86760E-07	413588.5	3766570.6	107.2	0.00	3.95	1.86	YES	HROFDY
L0001039	0	0.86760E-07	413580.0	3766571.2	107.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\School\School.isc ***
06/03/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001040	0	0.86760E-07	413571.5	3766571.8	106.7	0.00	3.95	1.86	YES	HROFDY
L0001041	0	0.86760E-07	413563.0	3766572.4	106.5	0.00	3.95	1.86	YES	HROFDY

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                                                   Echelon
 L0001042         0   0.86760E-07  413554.5 3766573.0   106.2     0.00     3.95     1.86     YES   HROFDY
 L0001043         0   0.86760E-07  413546.1 3766573.6   105.9     0.00     3.95     1.86     YES   HROFDY
 L0001044         0   0.86760E-07  413537.6 3766574.2   105.7     0.00     3.95     1.86     YES   HROFDY
 L0001045         0   0.86760E-07  413529.1 3766574.9   105.4     0.00     3.95     1.86     YES   HROFDY
 L0001046         0   0.86760E-07  413520.6 3766575.5   105.2     0.00     3.95     1.86     YES   HROFDY
 L0001047         0   0.86760E-07  413512.2 3766576.1   105.0     0.00     3.95     1.86     YES   HROFDY
 L0001048         0   0.86760E-07  413503.7 3766576.7   104.7     0.00     3.95     1.86     YES   HROFDY
 L0001049         0   0.86760E-07  413495.2 3766577.3   104.5     0.00     3.95     1.86     YES   HROFDY
 L0001050         0   0.86760E-07  413486.7 3766577.9   104.2     0.00     3.95     1.86     YES   HROFDY
 L0001051         0   0.86760E-07  413478.2 3766578.5   104.0     0.00     3.95     1.86     YES   HROFDY
 L0001052         0   0.86760E-07  413469.8 3766579.1   103.7     0.00     3.95     1.86     YES   HROFDY
 L0001053         0   0.86760E-07  413461.3 3766579.7   103.5     0.00     3.95     1.86     YES   HROFDY
 L0001054         0   0.86760E-07  413452.8 3766580.3   103.3     0.00     3.95     1.86     YES   HROFDY
 L0001055         0   0.86760E-07  413444.3 3766581.0   103.2     0.00     3.95     1.86     YES   HROFDY
 L0001056         0   0.86760E-07  413435.8 3766581.6   103.0     0.00     3.95     1.86     YES   HROFDY
 L0001057         0   0.86760E-07  413427.4 3766582.2   102.9     0.00     3.95     1.86     YES   HROFDY
 L0001058         0   0.86760E-07  413418.9 3766582.8   102.7     0.00     3.95     1.86     YES   HROFDY
 L0001059         0   0.86760E-07  413410.4 3766583.4   102.6     0.00     3.95     1.86     YES   HROFDY
 L0001060         0   0.86760E-07  413401.9 3766584.0   102.4     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                            SOURCE IDs
 -----------                                            ----------


  ALL        L0000800    , L0000801    , L0000802    , L0000803    , L0000804    , L0000805    , L0000806    ,
L0000807    ,

             L0000808    , L0000809    , L0000810    , L0000811    , L0000812    , L0000813    , L0000814    ,
L0000815    ,

             L0000816    , L0000817    , L0000818    , L0000819    , L0000820    , L0000821    , L0000822    ,
L0000823    ,

             L0000824    , L0000825    , L0000826    , L0000827    , L0000828    , L0000829    , L0000830    ,
L0000831    ,

             L0000832    , L0000833    , L0000834    , L0000835    , L0000836    , L0000837    , L0000838    ,
L0000839    ,

             L0000840    , L0000841    , L0000842    , L0000843    , L0000844    , L0000845    , L0000846    ,
L0000847    ,

             L0000848    , L0000849    , L0000850    , L0000851    , L0000852    , L0000853    , L0000854    ,
L0000855    ,

             L0000856    , L0000857    , L0000858    , L0000859    , L0000860    , L0000861    , L0000862    ,
L0000863    ,

             L0000864    , L0000865    , L0000866    , L0000867    , L0000868    , L0000869    , L0000870    ,
L0000871    ,

             L0000872    , L0000873    , L0000874    , L0000875    , L0000876    , L0000877    , L0000878    ,
L0000879    ,

             L0000880    , L0000881    , L0000882    , L0000883    , L0000884    , L0000885    , L0000886    ,
L0000887    ,
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L0000895    ,

             L0000896    , L0000897    , L0000898    , L0000899    , L0000900    , L0000901    , L0000902    ,
L0000903    ,

             L0000904    , L0000905    , L0000906    , L0000907    , L0000908    , L0000909    , L0000910    ,
L0000911    ,

             L0000912    , L0000913    , L0000914    , L0000915    , L0000916    , L0000917    , L0000918    ,
L0000919    ,

             L0000920    , L0000921    , L0000922    , L0000923    , L0000924    , L0000925    , L0000926    ,
L0000927    ,

             L0000928    , L0000929    , L0000930    , L0000931    , L0000932    , L0000933    , L0000934    ,
L0000935    ,

             L0000936    , L0000937    , L0000938    , L0000939    , L0000940    , L0000941    , L0000942    ,
L0000943    ,

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L0000951    ,

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L0000959    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                            SOURCE IDs
 -----------                                            ----------


             L0000960    , L0000961    , L0000962    , L0000963    , L0000964    , L0000965    , L0000966    ,
L0000967    ,

             L0000968    , L0000969    , L0000970    , L0000971    , L0000972    , L0000973    , L0000974    ,
L0000975    ,

             L0000976    , L0000977    , L0000978    , L0000979    , L0000980    , L0000981    , L0000982    ,
L0000983    ,

             L0000984    , L0000985    , L0000986    , L0000987    , L0000988    , L0000989    , L0000990    ,
L0000991    ,

             L0000992    , L0000993    , L0000994    , L0000995    , L0000996    , L0000997    , L0000998    ,
L0000999    ,

             L0001000    , L0001001    , L0001002    , L0001003    , L0001004    , L0001005    , L0001006    ,
L0001007    ,

             L0001008    , L0001009    , L0001010    , L0001011    , L0001012    , L0001013    , L0001014    ,
L0001015    ,

             L0001016    , L0001017    , L0001018    , L0001019    , L0001020    , L0001021    , L0001022    ,
L0001023    ,

             L0001024    , L0001025    , L0001026    , L0001027    , L0001028    , L0001029    , L0001030    ,
L0001031    ,
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L0001039    ,

             L0001040    , L0001041    , L0001042    , L0001043    , L0001044    , L0001045    , L0001046    ,
L0001047    ,

             L0001048    , L0001049    , L0001050    , L0001051    , L0001052    , L0001053    , L0001054    ,
L0001055    ,

             L0001056    , L0001057    , L0001058    , L0001059    , L0001060    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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   PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


              9862049.   L0000800    , L0000801    , L0000802    , L0000803    , L0000804    , L0000805    ,
L0000806    ,
 L0000807    ,

             L0000808    , L0000809    , L0000810    , L0000811    , L0000812    , L0000813    , L0000814    ,
L0000815    ,

             L0000816    , L0000817    , L0000818    , L0000819    , L0000820    , L0000821    , L0000822    ,
L0000823    ,

             L0000824    , L0000825    , L0000826    , L0000827    , L0000828    , L0000829    , L0000830    ,
L0000831    ,

             L0000832    , L0000833    , L0000834    , L0000835    , L0000836    , L0000837    , L0000838    ,
L0000839    ,

             L0000840    , L0000841    , L0000842    , L0000843    , L0000844    , L0000845    , L0000846    ,
L0000847    ,

             L0000848    , L0000849    , L0000850    , L0000851    , L0000852    , L0000853    , L0000854    ,
L0000855    ,

             L0000856    , L0000857    , L0000858    , L0000859    , L0000860    , L0000861    , L0000862    ,
L0000863    ,

             L0000864    , L0000865    , L0000866    , L0000867    , L0000868    , L0000869    , L0000870    ,
L0000871    ,

             L0000872    , L0000873    , L0000874    , L0000875    , L0000876    , L0000877    , L0000878    ,
L0000879    ,

             L0000880    , L0000881    , L0000882    , L0000883    , L0000884    , L0000885    , L0000886    ,
L0000887    ,

             L0000888    , L0000889    , L0000890    , L0000891    , L0000892    , L0000893    , L0000894    ,
L0000895    ,

             L0000896    , L0000897    , L0000898    , L0000899    , L0000900    , L0000901    , L0000902    ,
L0000903    ,

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L0000911    ,

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L0000919    ,

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L0000927    ,

             L0000928    , L0000929    , L0000930    , L0000931    , L0000932    , L0000933    , L0000934    ,
L0000935    ,

             L0000936    , L0000937    , L0000938    , L0000939    , L0000940    , L0000941    , L0000942    ,
L0000943    ,

             L0000944    , L0000945    , L0000946    , L0000947    , L0000948    , L0000949    , L0000950    ,
L0000951    ,

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L0000959    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


             L0000960    , L0000961    , L0000962    , L0000963    , L0000964    , L0000965    , L0000966    ,
L0000967    ,

             L0000968    , L0000969    , L0000970    , L0000971    , L0000972    , L0000973    , L0000974    ,
L0000975    ,

             L0000976    , L0000977    , L0000978    , L0000979    , L0000980    , L0000981    , L0000982    ,
L0000983    ,

             L0000984    , L0000985    , L0000986    , L0000987    , L0000988    , L0000989    , L0000990    ,
L0000991    ,

             L0000992    , L0000993    , L0000994    , L0000995    , L0000996    , L0000997    , L0000998    ,
L0000999    ,

             L0001000    , L0001001    , L0001002    , L0001003    , L0001004    , L0001005    , L0001006    ,
L0001007    ,

             L0001008    , L0001009    , L0001010    , L0001011    , L0001012    , L0001013    , L0001014    ,
L0001015    ,

             L0001016    , L0001017    , L0001018    , L0001019    , L0001020    , L0001021    , L0001022    ,
L0001023    ,

             L0001024    , L0001025    , L0001026    , L0001027    , L0001028    , L0001029    , L0001030    ,
L0001031    ,

             L0001032    , L0001033    , L0001034    , L0001035    , L0001036    , L0001037    , L0001038    ,
L0001039    ,

             L0001040    , L0001041    , L0001042    , L0001043    , L0001044    , L0001045    , L0001046    ,
L0001047    ,
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            L0001048    , L0001049    , L0001050    , L0001051    , L0001052    , L0001053    , L0001054    ,
L0001055    ,

            L0001056    , L0001057    , L0001058    , L0001059    , L0001060    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000800     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000801     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000802     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000803     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000804     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000805     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000806     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000807     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000808     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000809     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000810     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000811     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000812     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000813     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00


 SOURCE ID = L0000814     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000815     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000816     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000817     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000818     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000819     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000820     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000821     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000822     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000823     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000824     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:30:42

   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000825     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000826     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000827     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000828     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000829     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000830     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000831     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000832     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000833     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000834     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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   PAGE  20
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000835     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000836     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000837     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000838     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000839     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  21
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000840     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000841     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000842     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000843     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000844     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000845     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000846     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000847     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000848     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000849     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000850     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000851     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000852     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000853     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000854     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000855     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000856     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000857     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000858     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000859     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000860     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000861     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000862     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000863     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000864     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:30:42

   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000865     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00


 SOURCE ID = L0000866     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000867     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000868     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000869     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000870     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000871     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000872     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000873     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000874     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000875     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000876     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000877     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000878     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000879     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0000880     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000881     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000882     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000883     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000884     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
```

- -
- - - - - - - -

```
 SOURCE ID = L0000885     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000886     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000887     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000888     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000889     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                     ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   16:30:42

   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000890     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000891     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000892     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000893     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000894     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000895     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000896     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000897     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000898     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000899     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000900     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000901     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000902     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000903     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000904     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\Echelon\School\School.isc ***
06/03/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000905     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000906     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000907     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000908     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000909     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000910     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000911     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000912     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000913     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000914     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000915     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000916     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000917     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000918     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000919     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000920     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000921     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000922     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000923     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000924     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000925     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000926     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000927     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000928     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000929     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000930     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000931     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000932     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000933     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000934     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:30:42

   PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000935     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000936     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000937     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000938     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000939     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:30:42

   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000940     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000941     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000942     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00


 SOURCE ID = L0000943     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000944     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000945     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000946     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000947     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000948     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000949     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000950     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000951     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000952     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000953     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000954     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  44
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000955     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000956     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000957     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000958     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000959     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:30:42

   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000960     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000961     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000962     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000963     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000964     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000965     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000966     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000967     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000968     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000969     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   16:30:42

   PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000970     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000971     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000972     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000973     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000974     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000975     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0000976     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000977     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000978     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000979     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000980     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000981     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000982     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000983     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000984     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0000985     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000986     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000987     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000988     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000989     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0000990     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000991     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000992     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000993     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000994     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  52
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - -


 SOURCE ID = L0000995     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000996     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000997     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000998     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0000999     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  53
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001000     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001001     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001002     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001003     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001004     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001005     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001006     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001007     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001008     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001009     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42
```

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001010     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001011     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001012     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001013     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001014     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001015     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001016     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001017     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001018     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001019     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001020     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001021     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001022     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001023     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001024     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:30:42

   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001025     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001026     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001027     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001028     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001029     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:30:42

   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001030     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001031     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001032     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001033     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0001034     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001035     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001036     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001037     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001038     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001039     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                        ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  61
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001040     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001041     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001042     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001043     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001044     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   16:30:42

   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001045     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001046     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001047     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001048     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001049     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                       ***
    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:30:42

   PAGE  63
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001050     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001051     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001052     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0001053     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001054     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

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 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   16:30:42

   PAGE  64
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001055     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001056     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001057     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001058     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0001059     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0001060     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```



```
                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                     (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                  (METERS)

     ( 413509.4, 3765878.8,     105.0,     233.0,       0.0);         ( 413562.5, 3765873.6,     104.8,     233.0,
     0.0);
     ( 413489.5, 3766265.8,      99.7,     233.0,       0.0);         ( 413488.3, 3766242.9,     100.3,     233.0,
```

```
     0.0);
     ( 413482.9, 3766191.7,     103.3,     233.0,       0.0);         ( 413483.8, 3766130.4,     105.4,     233.0,
     0.0);
     ( 413502.8, 3765995.6,     102.3,     233.0,       0.0);         ( 413474.2, 3766065.4,     105.3,     233.0,
     0.0);
     ( 413600.6, 3765993.2,     103.2,     233.0,       0.0);         ( 413425.3, 3765984.3,     101.4,     233.0,
     0.0);
     ( 413568.4, 3765998.0,     103.0,     233.0,       0.0);         ( 413644.8, 3765992.6,     103.8,     233.0,
     0.0);
     ( 413474.2, 3766039.7,     104.2,     233.0,       0.0);         ( 413484.4, 3766157.8,     105.2,     233.0,
     0.0);
     ( 413607.8, 3765865.6,     104.8,     233.0,       0.0);         ( 413430.1, 3765897.2,     104.2,     233.0,
     0.0);
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    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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   PAGE  67
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                              (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                     *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                          (METERS/SEC)

                                                  1.54,   3.09,   5.14,   8.23,  10.80,
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    06/03/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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   PAGE  68
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   pico8.sfc                                                                    Met Version:
14134
   Profile file:   pico8.PFL
   Surface format: FREE

   Profile format: FREE

   Surface station no.:        0                  Upper air station no.:     3190
```

Name: UNKNOWN Name: UNKNOWN
Year: 2008 Year: 2008

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
08	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	285.4	5.5
08	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	284.2	5.5
08	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	283.8	5.5
08	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	284.2	5.5
08	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	284.9	5.5
08	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	285.4	5.5
08	01	01	1	07	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	285.9	5.5
08	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	0.54	999.00	999.	-9.0	286.4	5.5
08	01	01	1	09	28.6	-9.000	-9.000	-9.000	61.	-999.	-99999.0	0.34	1.00	0.32	999.00	999.	-9.0	287.0	5.5
08	01	01	1	10	83.5	-9.000	-9.000	-9.000	164.	-999.	-99999.0	0.34	1.00	0.24	999.00	999.	-9.0	289.2	5.5
08	01	01	1	11	131.2	-9.000	-9.000	-9.000	427.	-999.	-99999.0	0.34	1.00	0.21	999.00	999.	-9.0	292.5	5.5
08	01	01	1	12	130.6	-9.000	-9.000	-9.000	620.	-999.	-99999.0	0.34	1.00	0.20	999.00	999.	-9.0	294.2	5.5
08	01	01	1	13	112.1	-9.000	-9.000	-9.000	723.	-999.	-99999.0	0.34	1.00	0.20	999.00	999.	-9.0	294.9	5.5
08	01	01	1	14	86.7	-9.000	-9.000	-9.000	762.	-999.	-99999.0	0.34	1.00	0.21	999.00	999.	-9.0	294.9	5.5
08	01	01	1	15	37.3	-9.000	-9.000	-9.000	778.	-999.	-99999.0	0.34	1.00	0.25	999.00	999.	-9.0	294.2	5.5
08	01	01	1	16	12.7	-9.000	-9.000	-9.000	783.	-999.	-99999.0	0.34	1.00	0.33	999.00	999.	-9.0	293.8	5.5
08	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	0.60	999.00	999.	-9.0	292.5	5.5
08	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	291.4	5.5
08	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	290.9	5.5
08	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.8	5.5
08	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.1	5.5
08	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.1	5.5
08	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	288.8	5.5
08	01	01	1	24	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.34	1.00	1.00	999.00	999.	-9.0	287.5	5.5

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
08	01	01	01	5.5	0	-999.	-99.00	285.4	99.0	-99.00	-99.00
08	01	01	01	9.1	1	-999.	-99.00	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

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*** AERMET - VERSION 14134 *** *** ***

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000800 , L0000801 , L0000802 , L0000803 , L0000804 ,
L0000805 , L0000806 , L0000807 , L0000808 , L0000809 , L0000810 , L0000811 , L0000812 ,
L0000813 , L0000814 , L0000815 , L0000816 , L0000817 , L0000818 , L0000819 , L0000820 ,
L0000821 , L0000822 , L0000823 , L0000824 , L0000825 , L0000826 , L0000827 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
413509.37	3765878.81	0.00041	413562.54	3765873.58	0.00042
413489.48	3766265.81	0.00175	413488.29	3766242.89	0.00207
413482.93	3766191.68	0.00232	413483.77	3766130.37	0.00261
413502.85	3765995.62	0.00184	413474.23	3766065.38	0.00234
413600.63	3765993.24	0.00268	413425.34	3765984.30	0.00067
413568.43	3765998.01	0.00253	413644.75	3765992.64	0.00208
413474.23	3766039.74	0.00215	413484.36	3766157.79	0.00252
413607.78	3765865.65	0.00039	413430.11	3765897.25	0.00037

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

NETWORK GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00268 AT	(413600.63, 3765993.24, 103.18, 233.00, 0.00)	DC
	2ND HIGHEST VALUE IS	0.00261 AT	(413483.77, 3766130.37, 105.37, 233.00, 0.00)	DC
	3RD HIGHEST VALUE IS	0.00253 AT	(413568.43, 3765998.01, 103.01, 233.00, 0.00)	DC
	4TH HIGHEST VALUE IS	0.00252 AT	(413484.36, 3766157.79, 105.24, 233.00, 0.00)	DC

```
 5TH HIGHEST VALUE IS       0.00234 AT (  413474.23,  3766065.38,   105.26,   233.00,    0.00)  DC

 6TH HIGHEST VALUE IS       0.00232 AT (  413482.93,  3766191.68,   103.26,   233.00,    0.00)  DC

 7TH HIGHEST VALUE IS       0.00215 AT (  413474.23,  3766039.74,   104.18,   233.00,    0.00)  DC

 8TH HIGHEST VALUE IS       0.00208 AT (  413644.75,  3765992.64,   103.75,   233.00,    0.00)  DC

 9TH HIGHEST VALUE IS       0.00207 AT (  413488.29,  3766242.89,   100.29,   233.00,    0.00)  DC

10TH HIGHEST VALUE IS       0.00184 AT (  413502.85,  3765995.62,   102.26,   233.00,    0.00)  DC


*** RECEPTOR TYPES:  GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\Echelon\School\School.isc                      ***
   06/03/16
*** AERMET - VERSION  14134 ***   ***                                                                      ***
  16:30:42

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**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            0 Warning Message(s)
A Total of         1222 Informational Message(s)

A Total of        43848 Hours Were Processed

A Total of           13 Calm Hours Identified

A Total of         1209 Missing Hours Identified (  2.76 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
              ***  NONE  ***


   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

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APPENDIX 2.2:

RISK CALCULATIONS

Table A1

Quantification of Carcinogenic Risks

Residential Exposure Scenario

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00490
DBR (l/kg)	302
EF (350/365)	0.95890411
conv factor	0.000001
DOSEair =	1.41899E-06
CPF	1.1E+00
ED	70
AT	70
RISKair =	1.56E-06
RISK Per Million =	1.56

Quantification of Non Carcinogenic Risks

Residential Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.00098

Table A2
Quantification of Carcinogenic Risks
Worker Exposure Scenario

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00147
DBR (l/kg)	149
EF (245/365)	0.671232877
conv factor	0.000001
DOSEair =	1.4702E-07
CPF	1.1E+00
ED	40
AT	70
RISKair =	9.24E-08
RISK Per Million =	0.09

Quantification of Non Carcinogenic Risks
Worker Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.000294

Table A3
Quantification of Carcinogenic Risks
School Child Exposure Scenario

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00268
DBR (l/kg)	581
EF (180/365)	0.493150685
conv factor	0.000001
DOSEair =	7.67875E-07
CPF	1.1E+00
ED	9
AT	70
RISKair =	1.09E-07
RISK Per Million =	0.109

Quantification of Non Carcinogenic Risks
School Child Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.000536

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APPENDIX 2.3:

DPM EMISSIONS FROM PROJECT TRUCKS

AVERAGE EMISSION FACTOR
SCAQMD 2018-2087

Speed	LHD1	MHD	HHD
0	0.43381	0.012737	0.00360
5	0.02901	0.013493	0.01346
25	0.01245	0.007038	0.00815

Speed	**Weighted Average Emissions**
0	**0.23273**
5	**0.02173**
25	**0.01038**

Year	Speed	LHD1	MHD	HHD
2018	0 mph	0.79237	0.318506	0.033047001
	5 mph	0.118906	0.264861	0.060229435
	25 mph	0.039063	0.105149	0.030573797
2019	0 mph	0.785893	0.265333	0.028932169
	5 mph	0.113867	0.200402	0.054609263
	25 mph	0.037792	0.085494	0.028215482
2020	0 mph	0.776866	0.152423	0.01632181
	5 mph	0.108467	0.067683	0.0413094
	25 mph	0.036392	0.047065	0.023472852
2021	0 mph	0.764808	0.018632	0.014388297
	5 mph	0.102795	0.014181	0.035796349
	25 mph	0.034878	0.008087	0.021145027
2022	0 mph	0.748926	0.015736	0.012631094
	5 mph	0.096792	0.012873	0.031840065
	25 mph	0.033228	0.007374	0.018749452
2023	0 mph	0.732006	0.007051	0.008043089
	5 mph	0.09067	0.006767	0.012539176
	25 mph	0.031516	0.003954	0.0075383
2024	0 mph	0.713873	0.006123	0.007278717
	5 mph	0.08443	0.006719	0.01247209
	25 mph	0.029748	0.003967	0.007532255
2025	0 mph	0.69507	0.005269	0.006630151
	5 mph	0.078217	0.006658	0.012365025
	25 mph	0.027963	0.003967	0.007496328
2026	0 mph	0.675079	0.004542	0.006035825
	5 mph	0.072089	0.006587	0.012221168
	25 mph	0.026177	0.003955	0.007433986
2027	0 mph	0.653271	0.003989	0.005502393
	5 mph	0.066183	0.006502	0.012079574
	25 mph	0.024426	0.00393	0.007370102

2028	0 mph	0.631137	0.003543	0.005066544
	5 mph	0.060559	0.006445	0.011959475
	25 mph	0.022738	0.003917	0.007315487
2029	0 mph	0.607532	0.003188	0.004550467
	5 mph	0.055156	0.006387	0.011806858
	25 mph	0.021097	0.0039	0.007240578
2030	0 mph	0.584502	0.002857	0.004058412
	5 mph	0.050141	0.006322	0.011648329
	25 mph	0.019555	0.003877	0.0071606
2031	0 mph	0.561275	0.00258	0.00368926
	5 mph	0.045479	0.00626	0.011516857
	25 mph	0.018103	0.003852	0.007093872
2032	0 mph	0.541441	0.00237	0.003383885
	5 mph	0.041392	0.006203	0.011385668
	25 mph	0.01681	0.003829	0.007026898
2033	0 mph	0.522448	0.002196	0.003078176
	5 mph	0.037788	0.006154	0.011261433
	25 mph	0.015652	0.003809	0.006964223
2034	0 mph	0.503866	0.002055	0.002750014
	5 mph	0.034529	0.006103	0.011132304
	25 mph	0.014593	0.003786	0.006899484
2035	0 mph	0.486447	0.001926	0.002495272
	5 mph	0.031578	0.00605	0.011031422
	25 mph	0.013629	0.003761	0.006849825
2036	0 mph	0.470384	0.001818	0.002352542
	5 mph	0.028981	0.005998	0.010971038
	25 mph	0.012773	0.003737	0.006823726
2037	0 mph	0.455082	0.00174	0.002239967
	5 mph	0.026618	0.005951	0.01092839
	25 mph	0.011989	0.003713	0.006805247
2038	0 mph	0.440642	0.001674	0.002146598
	5 mph	0.024519	0.005914	0.010904338
	25 mph	0.011288	0.003694	0.006796094
2039	0 mph	0.427796	0.001621	0.002035919
	5 mph	0.022675	0.005882	0.0108819
	25 mph	0.010669	0.003677	0.006790942
2040	0 mph	0.41617	0.001572	0.001957292
	5 mph	0.021118	0.005856	0.010872957
	25 mph	0.01014	0.003664	0.006790877
2041	0 mph	0.405665	0.001532	0.001893924
	5 mph	0.019763	0.005834	0.0108664
	25 mph	0.009679	0.003652	0.006791336
2042	0 mph	0.396259	0.0015	0.001841465
	5 mph	0.018617	0.005816	0.010863683
	25 mph	0.009287	0.003643	0.006794107
2043	0 mph	0.388144	0.001472	0.001799068
	5 mph	0.017696	0.005803	0.010863687
	25 mph	0.008967	0.003637	0.006798152
2044	0 mph	0.380136	0.001448	0.001752527
	5 mph	0.016747	0.005793	0.010861017
	25 mph	0.008648	0.003632	0.006801351

2045	0 mph	0.372913	0.001425	0.001703377
	5 mph	0.015908	0.005786	0.010855396
	25 mph	0.008367	0.003629	0.006803496
2046	0 mph	0.365937	0.001407	0.00165982
	5 mph	0.015092	0.005782	0.010851429
	25 mph	0.008099	0.003627	0.00680546
2047	0 mph	0.359557	0.001392	0.001625269
	5 mph	0.014363	0.005778	0.010849564
	25 mph	0.007862	0.003625	0.006806968
2048	0 mph	0.353391	0.001381	0.001588277
	5 mph	0.013649	0.005778	0.01085121
	25 mph	0.007633	0.003625	0.006808583
2049	0 mph	0.347599	0.001373	0.001557941
	5 mph	0.013005	0.005779	0.010855216
	25 mph	0.007427	0.003625	0.006810689
2050	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2051	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2052	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2053	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2054	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2055	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2056	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2057	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2058	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2059	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2060	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2061	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526

2062	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2063	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2064	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2065	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2066	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2067	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2068	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2069	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2070	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2071	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2072	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2073	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2074	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2075	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2076	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2077	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2078	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526

2079	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2080	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2081	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2082	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2083	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2084	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2085	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2086	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2087	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526

AVERAGE EMISSION FACTOR
SCAQMD 2018-2057

Speed	LHD1	MHD	HHD
0	0.502387	0.021265	0.00516
5	0.041434	0.019279	0.01541
25	0.01635	0.009597	0.00915

Speed	**Weighted Average Emissions**
0	**0.27024**
5	**0.02943**
25	**0.01300**

Year	Speed	LHD1	MHD	HHD
2018	0 mph	0.79237	0.318506	0.033047001
	5 mph	0.118906	0.264861	0.060229435
	25 mph	0.039063	0.105149	0.030573797
2019	0 mph	0.785893	0.265333	0.028932169
	5 mph	0.113867	0.200402	0.054609263
	25 mph	0.037792	0.085494	0.028215482
2020	0 mph	0.776866	0.152423	0.01632181
	5 mph	0.108467	0.067683	0.0413094
	25 mph	0.036392	0.047065	0.023472852
2021	0 mph	0.764808	0.018632	0.014388297
	5 mph	0.102795	0.014181	0.035796349
	25 mph	0.034878	0.008087	0.021145027
2022	0 mph	0.748926	0.015736	0.012631094
	5 mph	0.096792	0.012873	0.031840065
	25 mph	0.033228	0.007374	0.018749452
2023	0 mph	0.732006	0.007051	0.008043089
	5 mph	0.09067	0.006767	0.012539176
	25 mph	0.031516	0.003954	0.0075383
2024	0 mph	0.713873	0.006123	0.007278717
	5 mph	0.08443	0.006719	0.01247209
	25 mph	0.029748	0.003967	0.007532255
2025	0 mph	0.69507	0.005269	0.006630151
	5 mph	0.078217	0.006658	0.012365025
	25 mph	0.027963	0.003967	0.007496328
2026	0 mph	0.675079	0.004542	0.006035825
	5 mph	0.072089	0.006587	0.012221168
	25 mph	0.026177	0.003955	0.007433986
2027	0 mph	0.653271	0.003989	0.005502393
	5 mph	0.066183	0.006502	0.012079574
	25 mph	0.024426	0.00393	0.007370102
2028	0 mph	0.631137	0.003543	0.005066544
	5 mph	0.060559	0.006445	0.011959475

	25 mph	0.022738	0.003917	0.007315487
2029	0 mph	0.607532	0.003188	0.004550467
	5 mph	0.055156	0.006387	0.011806858
	25 mph	0.021097	0.0039	0.007240578
2030	0 mph	0.584502	0.002857	0.004058412
	5 mph	0.050141	0.006322	0.011648329
	25 mph	0.019555	0.003877	0.0071606
2031	0 mph	0.561275	0.00258	0.00368926
	5 mph	0.045479	0.00626	0.011516857
	25 mph	0.018103	0.003852	0.007093872
2032	0 mph	0.541441	0.00237	0.003383885
	5 mph	0.041392	0.006203	0.011385668
	25 mph	0.01681	0.003829	0.007026898
2033	0 mph	0.522448	0.002196	0.003078176
	5 mph	0.037788	0.006154	0.011261433
	25 mph	0.015652	0.003809	0.006964223
2034	0 mph	0.503866	0.002055	0.002750014
	5 mph	0.034529	0.006103	0.011132304
	25 mph	0.014593	0.003786	0.006899484
2035	0 mph	0.486447	0.001926	0.002495272
	5 mph	0.031578	0.00605	0.011031422
	25 mph	0.013629	0.003761	0.006849825
2036	0 mph	0.470384	0.001818	0.002352542
	5 mph	0.028981	0.005998	0.010971038
	25 mph	0.012773	0.003737	0.006823726
2037	0 mph	0.455082	0.00174	0.002239967
	5 mph	0.026618	0.005951	0.01092839
	25 mph	0.011989	0.003713	0.006805247

2038	0 mph	0.440642	0.001674	0.002146598
	5 mph	0.024519	0.005914	0.010904338
	25 mph	0.011288	0.003694	0.006796094
2039	0 mph	0.427796	0.001621	0.002035919
	5 mph	0.022675	0.005882	0.0108819
	25 mph	0.010669	0.003677	0.006790942
2040	0 mph	0.41617	0.001572	0.001957292
	5 mph	0.021118	0.005856	0.010872957
	25 mph	0.01014	0.003664	0.006790877
2041	0 mph	0.405665	0.001532	0.001893924
	5 mph	0.019763	0.005834	0.0108664
	25 mph	0.009679	0.003652	0.006791336
2042	0 mph	0.396259	0.0015	0.001841465
	5 mph	0.018617	0.005816	0.010863683
	25 mph	0.009287	0.003643	0.006794107
2043	0 mph	0.388144	0.001472	0.001799068
	5 mph	0.017696	0.005803	0.010863687
	25 mph	0.008967	0.003637	0.006798152
2044	0 mph	0.380136	0.001448	0.001752527
	5 mph	0.016747	0.005793	0.010861017
	25 mph	0.008648	0.003632	0.006801351
2045	0 mph	0.372913	0.001425	0.001703377
	5 mph	0.015908	0.005786	0.010855396
	25 mph	0.008367	0.003629	0.006803496
2046	0 mph	0.365937	0.001407	0.00165982
	5 mph	0.015092	0.005782	0.010851429
	25 mph	0.008099	0.003627	0.00680546
2047	0 mph	0.359557	0.001392	0.001625269
	5 mph	0.014363	0.005778	0.010849564
	25 mph	0.007862	0.003625	0.006806968
2048	0 mph	0.353391	0.001381	0.001588277
	5 mph	0.013649	0.005778	0.01085121
	25 mph	0.007633	0.003625	0.006808583
2049	0 mph	0.347599	0.001373	0.001557941
	5 mph	0.013005	0.005779	0.010855216
	25 mph	0.007427	0.003625	0.006810689
2050	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526

2051	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2052	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2053	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2054	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2055	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2056	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2057	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526

AVERAGE EMISSION FACTOR
SCAQMD 2018-2026

Speed	LHD1	MHD	HHD
0	0.742765	0.088179	0.01481
5	0.096248	0.065192	0.03038
25	0.03297	0.02989	0.01691

Speed	**Weighted Average Emissions**
0	**0.40525**
5	**0.06704**
25	**0.02606**

Year	Speed	LHD1	MHD	HHD
2018	0 mph	0.79237	0.318506	0.033047001
	5 mph	0.118906	0.264861	0.060229435
	25 mph	0.039063	0.105149	0.030573797
2019	0 mph	0.785893	0.265333	0.028932169
	5 mph	0.113867	0.200402	0.054609263
	25 mph	0.037792	0.085494	0.028215482
2020	0 mph	0.776866	0.152423	0.01632181
	5 mph	0.108467	0.067683	0.0413094
	25 mph	0.036392	0.047065	0.023472852
2021	0 mph	0.764808	0.018632	0.014388297
	5 mph	0.102795	0.014181	0.035796349
	25 mph	0.034878	0.008087	0.021145027
2022	0 mph	0.748926	0.015736	0.012631094
	5 mph	0.096792	0.012873	0.031840065
	25 mph	0.033228	0.007374	0.018749452
2023	0 mph	0.732006	0.007051	0.008043089
	5 mph	0.09067	0.006767	0.012539176
	25 mph	0.031516	0.003954	0.0075383
2024	0 mph	0.713873	0.006123	0.007278717
	5 mph	0.08443	0.006719	0.01247209
	25 mph	0.029748	0.003967	0.007532255
2025	0 mph	0.69507	0.005269	0.006630151
	5 mph	0.078217	0.006658	0.012365025
	25 mph	0.027963	0.003967	0.007496328
2026	0 mph	0.675079	0.004542	0.006035825
	5 mph	0.072089	0.006587	0.012221168
	25 mph	0.026177	0.003955	0.007433986

Emission Rates - Residential Exposure (Average of emission factors for years 2018 through 2087)

Truck Emission Rates (70 year average)						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - Building A	16			0.2327	0.91	1.049E-05
On-Site Idling - Building B	16			0.2327	0.93	1.077E-05
On-Site Idling - Building C	16			0.2327	0.93	1.077E-05
On-Site Idling - Building D	16			0.2327	0.93	1.077E-05
On-Site Idling - Building E	16			0.2327	0.93	1.077E-05
On-Site Idling - Building F	16			0.2327	0.93	1.077E-05
On-Site Idling - Building G	16			0.2327	0.93	1.077E-05
On-Site Travel	55	36.89	0.0217		0.80	9.277E-06
100% Echelon Av to Amar Rd	109	26.41	0.0104		0.27	3.174E-06
50% Amar Rd to/from the east	55	10.07	0.0104		0.10	1.211E-06
50% Amar Rd to/from the west	55	10.93	0.0104		0.11	1.314E-06

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - Worker Exposure (Average of emission factors for years 2018 through 2057)

Truck Emission Rates (40 year average)						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - Building A	16			0.2702	1.05	1.218E-05
On-Site Idling - Building B	16			0.2702	1.08	1.251E-05
On-Site Idling - Building C	16			0.2702	1.08	1.251E-05
On-Site Idling - Building D	16			0.2702	1.08	1.251E-05
On-Site Idling - Building E	16			0.2702	1.08	1.251E-05
On-Site Idling - Building F	16			0.2702	1.08	1.251E-05
On-Site Idling - Building G	16			0.2702	1.08	1.251E-05
On-Site Travel	55	36.89	0.0294		1.09	1.256E-05
100% Echelon Av to Amar Rd	109	26.41	0.0130		0.34	3.974E-06
50% Amar Rd to/from the east	55	10.07	0.0130		0.13	1.516E-06
50% Amar Rd to/from the west	55	10.93	0.0130		0.14	1.645E-06

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - School Child Exposure (Average of emission factors for years 2018 through 2026)

Truck Emission Rates (9 year average)						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - Building A	16			0.4053	1.58	1.826E-05
On-Site Idling - Building B	16			0.4053	1.62	1.876E-05
On-Site Idling - Building C	16			0.4053	1.62	1.876E-05
On-Site Idling - Building D	16			0.4053	1.62	1.876E-05
On-Site Idling - Building E	16			0.4053	1.62	1.876E-05
On-Site Idling - Building F	16			0.4053	1.62	1.876E-05
On-Site Idling - Building G	16			0.4053	1.62	1.876E-05
On-Site Travel	55	36.89	0.0670		2.47	2.863E-05
100% Echelon Av to Amar Rd	109	26.41	0.0261		0.69	7.968E-06
50% Amar Rd to/from the east	55	10.07	0.0261		0.26	3.039E-06
50% Amar Rd to/from the west	55	10.93	0.0261		0.28	3.297E-06

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

APPENDIX C – GHG REPORT

Echelon Avenue Commerce Park

GREENHOUSE GAS ANALYSIS

CITY OF INDUSTRY

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JUNE 9, 2016

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LIST OF ABBREVIATED TERMS

(1)	Reference
APS	Alternative Planning Organizations
ARB	California Air Resources Board
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CAT	Climate Action Team
CBSC	California Building Standards Commission
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
CFR	Code of Federal Regulations
CH4	Methane
CO	Carbon Monoxide
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
CPUC	California Public Utilities Commission
EPA	Environmental Protection Agency
EPS	Emission Performance Standard
GCC	Global Climate Change
GHGA	Greenhouse Gas Analysis
GWP	Global Warming Potential
HFC	Hydrofluorocarbons
LCA	Life-Cycle Analysis
MMs	Mitigation Measures
MMTCO2e	Million Metric Ton of Carbon Dioxide Equivalent
MPOs	Metropolitan Planning Organizations
MTCO2e	Metric Ton of Carbon Dioxide Equivalent
N20	Nitrogen Dioxide
NIOSH	National Institute for Occupational Safety and Health
NOx	Oxides of Nitrogen
PFC	Perfluorocarbons
PM10	Particulate Matter 10 microns in diameter or less

PM2.5	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Echelon Avenue Commerce Park
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategies
UNFCCC	United Nations' Framework Convention on Climate Change
VOC	Volatile Organic Compounds

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EXECUTIVE SUMMARY

The City of Industry (City) has not adopted its own numeric threshold of significance for determining impacts with respect to greenhouse gas (GHG) emissions.

However, as an interim threshold based on guidance provided in the California Air Pollution Control Officers Association (CAPCOA) CEQA and Climate Change handbook, the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook (1). Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for business park projects (2). This approach has been adopted by the South Coast Air Quality Management (SCAQMD) for business park projects where it is the lead agency. This approach is also widely used by the City of Industry and various other cities in the South Coast Air Basin (SCAB) where the SCAQMD is the lead agency (3). As such, this threshold will be utilized herein to determine if emissions of greenhouse gases from this project will be significant.

As shown on Table ES-1, the Project will result in approximately 3,536.24 metric tons of carbon dioxide equivalents (MTCO2e) per year; the proposed project would not exceed the SCAQMD's interim threshold of 10,000 MTCO2e per year. Therefore, a less than significant impact will occur and no further analysis is required. This finding is does not conflict with the significant and unavoidable impact finding with respect to GHG emissions that was made in the City of Industry General Plan Update EIR. The overall GHG impacts of the proposed Project would be less than what was disclosed in the General Plan Update EIR.

Additionally, the Project is consistent with or otherwise not in conflict with, the recommended measures and actions listed in the California Air Resources Board (CARB) December 2008 Scoping Plan (CARB Scoping Plan). The CARB Scoping Plan identifies strategies and measures that development projects can implement in order to achieve the GHG reductions goals set forth in the Global Warming Solutions Act of 2006 (AB 32).

TABLE ES-1: PROJECT GHG EMISSIONS SUMMARY (ANNUAL)

Emission Source	**Emissions (metric tons per year)**			
	CO_2	**CH_4**	**N_2O**	**Total CO_2E**
Annual construction-related emissions amortized over 30 years	34.23	6.23E-03	--	34.36
Area	2.00E-02	5.00E-05	--	2.00E-02
Energy	893.04	0.05	1.00E-02	897.61
Mobile Sources (Trucks)	1,878.66	0.03	0.02	1,879.20
Mobile Sources (Passenger Cars)	346.85	0.01	--	347.16
Waste	62.01	3.66	--	138.98
Water Usage	185.53	1.87	0.05	238.91
Total CO_2E (All Sources)	**3,536.24**			

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1 INTRODUCTION

This report presents the results of the greenhouse gas analysis (GHGA) prepared by Urban Crossroads, Inc., for the proposed Echelon Avenue Commerce Park ("Project").

The purpose of this GHGA is to evaluate net new Project-related construction and operational emissions and determine the level of greenhouse gas (GHG) impacts as a result of constructing and operating the proposed Project, and to compare the Project impacts with the project impacts analyzed and disclosed in the Industry General Plan Update EIR.

1.1 SITE LOCATION

The proposed Echelon Avenue Commerce Park site is located at the southwest corner of Echelon Avenue and Loukelton Street in the City of Industry, as shown on Exhibit 1-A. The Project site is bounded by residential units to the east and west, William Workman High School to the south, and industrial buildings to the north. Currently there is a single, unoccupied residence on the northeast corner of the Project site that will be demolished in order to facilitate construction of the Project.

1.2 PROJECT DESCRIPTION

It is our understanding that the Project is proposed to consist of 246,373 square feet (sf) of business park spread over seven (7) buildings, as shown on Exhibit 1-B. Each individual building is between 27,417 sf and 43,166 sf in size with 2-5 dock doors, indicating low truck generating users (in comparison to heavy warehouse or other industrial land uses). For the purposes of this analysis, it is assumed that the Project will be fully constructed and occupied by early 2018.

1.3 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of greenhouse gas emissions include:

- Global Warming Solutions Act of 2006 (AB32) (4). AB 32 is applicable to the Project because, as a development Project, the 17110-17120 Main Street Project will need to meet 2020 GHG reduction goals set forth in AB 32. AB 32 requires the California Air Resources Board (CARB or ARB) to develop regulations and market mechanisms to reduce California's greenhouse gas emissions to 1990 levels by the year of 2020. Many of the GHG reduction measures outlined in AB 32 (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted over the last five years and implementation activities are ongoing.
- Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles (5). AB 1493 (Pavley) establishes fuel efficiency rating for model year 2009-2016 passenger cars and light trucks. AB 1493 is applicable to the Project because model year 2009-2016 passenger cars and light duty truck vehicles traveling to and from the Project site are required by the State of California to implement GHG emission reduction standards related to fuel efficiency. The CARB

anticipates that implementation of the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 30 percent in 2016 compared to emissions that occurred prior to 2009 when AB 1492 was enacted.

- Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction (6). The Title 24 energy standards address the energy efficiency of new (and altered) homes and commercial buildings. Because energy efficiency reduces energy costs, increases reliability and availability of electricity, improves building occupant comfort, and reduces impacts to the environment, standards are important and necessary for California's energy future. Therefore, a new development such as the 17110-17120 Main Street Project is required to comply with Title 24 Code of Regulations and would therefore increase the Project's energy efficiency and reduce its environmental impact.
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020 (7). Because the LCFS applies to any transportation fuel that is sold, supplied, or offered for sale in California, and to any person who, as a regulated party, is responsible for a transportation fuel in a calendar year, all vehicles accessing the site will be required to comply with LCFS. Implementation of such a standard will reduce greenhouse gas emissions by reducing the full fuel-cycle, carbon intensity of the transportation fuel pool used in California.
- California Water Conservation in Landscaping Act of 2006 (AB1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes (8). As new development project within the State of California, the 17110-17120 Main Street Project is required to comply with the City of Industry 's adopted water efficient landscape requirements and would therefore be consistent with the requirements of AB1881 in order to help conserve California's water resources and to promote efficient water use.

1.4 CONSTRUCTION AND OPERATIONAL -SOURCE MITIGATION MEASURES

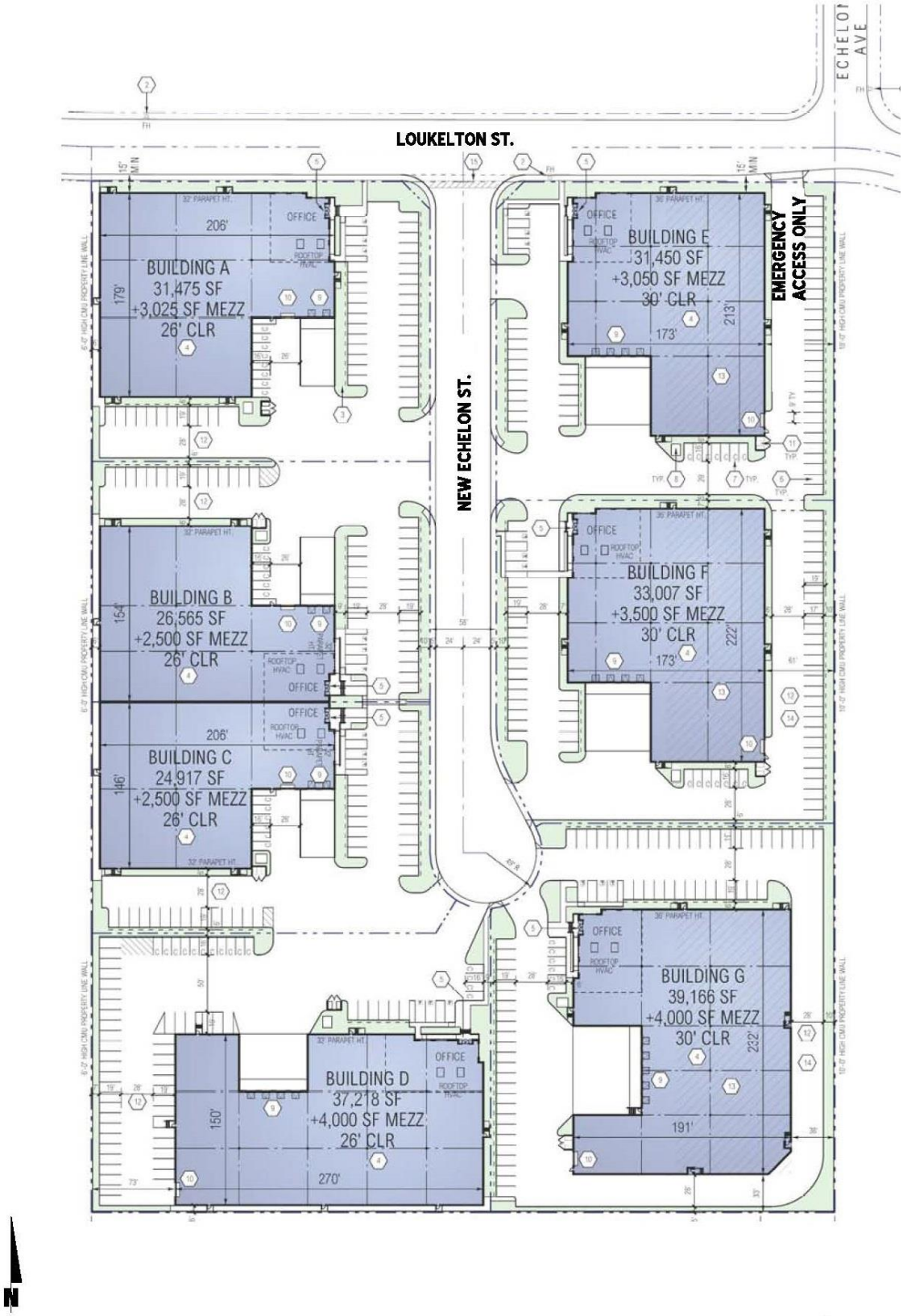
As previously noted, the Project would not result in a significant impact with respect to GHG emissions. Therefore, no mitigation measures are required.

EXHIBIT 1-A: LOCATION MAP

LEGEND:

- ■ EXISTING INTERSECTION ANALYSIS LOCATION
- ■ FUTURE INTERSECTION ANALYSIS LOCATION

EXHIBIT 1-B: SITE PLAN



2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. GCC is currently one of the most controversial environmental issues in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred in the past over the course of thousands or millions of years. These historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GREENHOUSE GAS EMISSIONS INVENTORIES

Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations are available through 2011. For the Year 2011 the sum of these emissions totaled approximately 25,285,543 Gg CO2e[1] (9) (10). The GHG emissions in more recent years may differ from the inventories presented in Table 2-1; however, the data is representative of currently available inventory data.

[1] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2005 data, the UNFCCC data for the most recent year were used. United Nations Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF,"

United States

As noted in Table 2-1, the United States, as a single country, was the number two producer of GHG emissions in 2012. The primary greenhouse gas emitted by human activities in the United States was CO2, representing approximately 83 percent of total greenhouse gas emissions (11). Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 78 percent of the GHG emissions.

TABLE 2-1: TOP GHG PRODUCER COUNTRIES AND THE EUROPEAN UNION[2]

Emitting Countries	GHG Emissions (Gg CO2e)
China	10,975,500
United States	6,665,700
European Union (28 member countries)	4,544,224
India	3,013,770
Russian Federation	2,322,220
Japan	1,344,580
Total	**28,865,994**

State of California

CARB compiles GHG inventories for the State of California. CARB GHG inventory data indicates that in 2013 (the most recent inventory of record) California GHG emissions totaled approximately 459.3 Million Metric Tons of Carbon Dioxide Equivalent ($MMTCO_2e$).[3] "In 2010, California accounted for 6.8 percent of all emissions in the country [United States], and ranked second highest among the states with total emissions of 453 $MMTCO_2e$, only behind Texas with 763 $MMTCO_2e$. From a per capita standpoint, California has the 45th lowest emissions with 12.1 $MMTCO_2e$ /person in 2010."[4]

2.3 GLOBAL CLIMATE CHANGE DEFINED

Global Climate Change (GCC) refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO2 (Carbon Dioxide), N2O (Nitrous Oxide), CH4 (Methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally as it has in the past with the previous

2 Used http://unfccc.int data for Annex I countries. Consulted the CAIT Climate Data Explorer in http://www.wri.org site to reference Non-Annex I countries such as China and India.

3 Cal EPA. "California Greenhouse Gas Emission Inventory - 2015 Edition." California's Greenhouse Gas Emission Inventory. Cal EPA, n.d. Web. 29 Oct. 2015.

4 California Environmental Protection Agency. Air Resources Board. California's Greenhouse Gas Emission Inventory - 2014 Edition (May 2014), p. 28.

ice ages. According to the California Air Resources Board (CARB), the climate change since the industrial revolution differs from previous climate changes in both rate and magnitude (12).

Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

Although California's rate of growth of greenhouse gas emissions is slowing, the state is still a substantial contributor to the U.S. emissions inventory total. In 2004, California is estimated to have produced 492 million gross metric tons of carbon dioxide equivalent (CO2e) greenhouse gas emissions. Despite a population increase of 16 percent between 1990 and 2004, California has significantly slowed the rate of growth of greenhouse gas emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls (13).

2.4 GREENHOUSE GASES

For the purposes of this analysis, emissions of carbon dioxide, methane, and nitrous oxide were evaluated (see Table 3-3 later in this report) because these gasses are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate these gases.

Greenhouse gases have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the reference gas for GWP, and thus has a GWP of 1.

The atmospheric lifetime and GWP of selected greenhouse gases are summarized at Table 2-2. As shown in the table below, GWP for the SAR range from 1 for carbon dioxide to 23,900 for sulfur hexafluoride and GWP for the AR4 range from 1 for carbon dioxide to 22,800 for sulfur hexafluoride.

TABLE 2-2: GLOBAL WARMING POTENTIAL AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)	
		Second Assessment Report (SAR)	4th Assessment Report (AR4)
Carbon Dioxide	50-200	1	1
Methane	12 ± 3	21	25
Nitrous Oxide	120	310	298
HFC-23	264	11,700	14,800
HFC-134a	14.6	1,300	1,430
HFC-152a	1.5	140	124
Sulfur Hexafluoride (SF6)	3,200	23,900	22,800

Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

Water Vapor: Water vapor (H20) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include: evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

Carbon Dioxide: Carbon dioxide (CO2) is an odorless and colorless GHG. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (14).

Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (15).

Methane: Methane (CH4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. No health effects are known to occur from exposure to methane.

Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide: Nitrous oxide (N2O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (16).

Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction

Chlorofluorocarbons: Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C2H6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs are no longer being used; therefore, it is not likely that health effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other

CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF3), HFC-134a (CF3CH2F), and HFC-152a (CH3CHF2). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt (17). No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above Earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF4) and hexafluoroethane (C2F6). The U.S. EPA estimates that concentrations of CF4 in the atmosphere are over 70 ppt.

No health effects are known to result from exposure to PFCs. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride: Sulfur hexafluoride (SF6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

2.5 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90oF in Los Angeles and 95oF in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25 percent of the water supply they need. Although higher CO2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate O3 pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global climate change could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90 percent due to decreased precipitation.

Moreover, continued global climate change has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of global climate change.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and

inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.6 HUMAN HEALTH EFFECTS

The potential health effects related directly to the emissions of carbon dioxide, methane, and nitrous oxide as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to global climate change have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (18). Exhibit 2-A presents the potential impacts of global warming.

Water Vapor: There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

Carbon Dioxide: According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of carbon dioxide can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of carbon dioxide in the earth's atmosphere are estimated to be approximately 370 parts per million (ppm), the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (19).

Specific health effects associated with directly emitted GHG emissions are as follows:

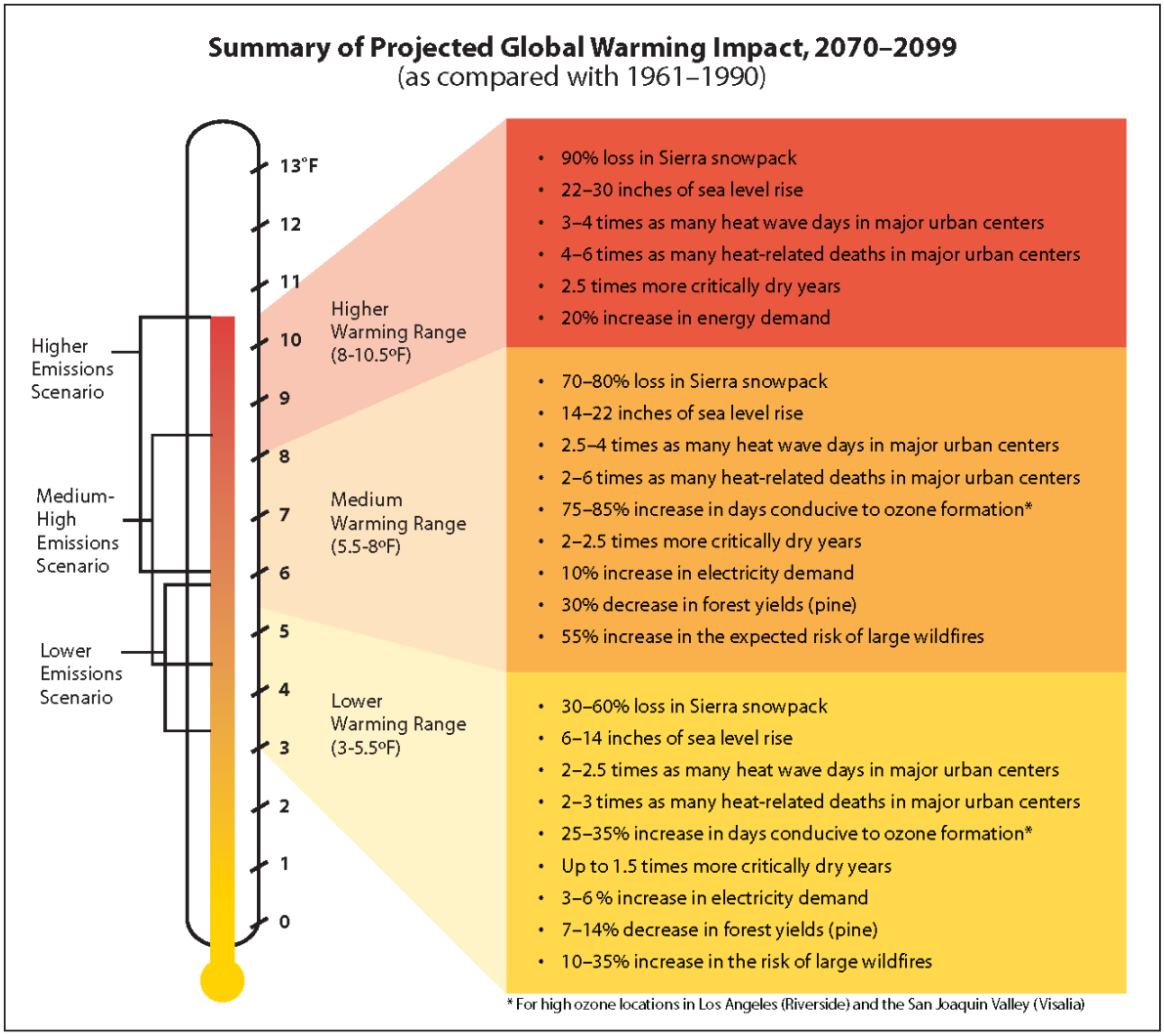
Methane: Methane is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Methane is also an asphyxiant and may displace oxygen in an enclosed space (20).

Nitrous Oxide: Nitrous Oxide is often referred to as laughing gas; it is a colorless greenhouse gas. The health effects associated with exposure to elevated concentrations of nitrous oxide include dizziness, euphoria, slight hallucinations, and in extreme cases of elevated concentrations nitrous oxide can also cause brain damage (20).

Fluorinated Gases: High concentrations of fluorinated gases can also result in adverse health effects such as asphyxiation, dizziness, headache, cardiovascular disease, cardiac disorders, and in extreme cases, increased mortality (19).

Aerosols: The health effects of aerosols are similar to that of other fine particulate matter. Thus aerosols can cause elevated respiratory and cardiovascular diseases as well as increased mortality (21).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT



2.7 REGULATORY SETTING

<u>International Regulation and the Kyoto Protocol:</u>

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto protocol are met, global GHG emissions could be reduced an estimated five percent from 1990

levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto.

2015 United Nations Paris Climate Change Conference

On December 12, 2015, which marks the 11th meeting of the Parties to the Kyoto Protocol, 195 nations, including the United States and China, agreed upon a strategy for combatting global climate change to be in effect in 2020. This historic meeting, known as the 21st annual Conference of the Parties (COP21), focused on five key elements: mitigation, a transparency system and global stock-take, adaptation, loss and damage, and support.

In mitigating global climate change, COP 21 participating nations agreed upon a universal long-term goal of keeping the global temperature to well below 2°C or 3.6°F well above pre-industrial levels. The agreement also encouraged participating nations to limit temperature increases even further to 1.5°C or 2.7°F above pre-industrial levels. In addition to that, nations agreed to peak their GHG emissions as soon as possible, with the recognition that developing countries may take longer than developed countries. Thereafter, nations are to undergo rapid reductions in accordance to best available technological advances. The nations are to submit national climate action plans that detail future objectives to address climate change.

In supporting a transparency system and global stock-take, the participating nations agreed to meet every 5 years to set more ambitious targets on global climate change as technologically feasible. The nations are to report to each other and to the public on their progress towards implementing targets and goals through a transparency and accountability system.

In adaptation, participating nations are to strengthen the ability of nations to deal with climate impacts and provide continued international support for adaptation to developing countries.

In supporting loss and damage, participating nations understand the importance of minimizing and addressing the loss and damage associated with adverse effects of global climate change. These nations acknowledge the need to corporate with each other and support each other through safeguards, such as early warning systems, emergency preparedness, and risk insurance.

Participating nations are to support each other in their efforts to fight against global climate change. Developed countries within the COP21 are to continue their existing collective goal of utilizing 100 billion per year in support of the poorest and most vulnerable participating nations, known as climate finance, until 2025, when a new collective goal will be set. (22) (23)

Federal Regulation and the Clean Air Act:

Coinciding 2009 meeting in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. To date,

the EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them.

Previously the EPA had not regulated GHGs under the Clean Air Act (24) because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 (2007), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the unintended reduction of greenhouse gas emissions. In order to manage the state's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975.

<u>Title 24 Energy Standards:</u>

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (25) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The Energy Commission's most recent standard, 2013 Building Energy Efficiency Standard, is 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The Standards, which took effect on January 1, 2014, offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Some improved measures in the Standards include:

Residential:

- Solar-ready roofs to allow homeowners to add solar photovoltaic panels at a future date
- More efficient windows to allow increased sunlight, while decreasing heat gain
- Insulated hot water pipes, to save water and energy and reduce the time it takes to deliver hot water
- Whole house fans to cool homes and attics with evening air reducing the need for air conditioning load
- Air conditioner installation verification to insure efficient operation

Nonresidential:

- High performance windows, sensors and controls that allow buildings to use "daylighting"
- Efficient process equipment in supermarkets, computer data centers, commercial kitchens, laboratories, and parking garages
- Advanced lighting controls to synchronize light levels with daylight and building occupancy, and provide demand response capability
- Solar-ready roofs to allow businesses to add solar photovoltaic panels at a future date
- Cool roof technologies

CALGreen

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code) (26). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). The CBSC has released the 2010 California Green Building Standards Code on its Web site. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

CALGreen contains both mandatory and voluntary measures, for Non-Residential land uses there are 39 mandatory measures including, but not limited to: exterior light pollution reduction, wastewater reduction by 20%, and commissioning of projects over 10,000 sf. There are two tiers of voluntary measures for Non-Residential land uses for a total of 36 additional elective measures.

The 2013 CALGreen includes additions and amendments to the water efficiency standards for non residential buildings in order to comply with the reduced flow rate table. The 2013 CALGreen has also been rewritten to clarify and definitively identify the requirements and applicability for residential and nonresidential buildings.

California Assembly Bill No. 1493 (AB 1493):

AB 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California (27). Further, the legislature stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, ARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13

1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, Massachusetts vs. EPA, the primary issue in question is whether the federal CAA provides authority for USEPA to regulate CO2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the USEPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging USEPA's denial on January 2, 2008.

The Obama administration subsequently directed the USEPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the USEPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater greenhouse gas benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with USEPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal CAFE program to demonstrate compliance with the AB 1493 regulations (CARB 2009, http://www.arb.ca.gov/regact/2009/ghgpv09/ghgpvisor.pdf) both of these programs are aimed at light-duty auto and light-duty trucks.

<u>Executive Order S-3-05:</u>

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change (28). It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive

Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

California Assembly Bill 32 (AB 32):

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020 (29). This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs (emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – 7 percent; agriculture – 5 percent; and commercial – 3 percent). Accordingly, 427 MMTs of CO2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the 28.4 percent reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plants, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO2 emissions in the State.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

Table 2-3 shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 MMTons of CO2e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 MMTons tons of CO2e (or approximately 1.2 percent of the GHG reduction target).

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 30 percent in the absence of new laws and regulations (referred to as "Business-As-Usual" [BAU]). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and California Climate Action Team early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.

TABLE 2-3: SCOPING PLAN GHG REDUCTION MEASURES TOWARDS 2020 TARGET

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e

[1]Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

[2]According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

In connection with its preparation of the August 2011 Final Supplement to the Scoping Plan's Functional Equivalent Document, CARB released revised estimates of the 2020 emissions level projection in light of the economic recession and the availability of updated information from development of measure-specific regulations. Based on the new economic data, CARB determined the 2020 emissions level projection in the BAU condition would be reduced from 596 metric tons of CO2 equivalent (MTCO2e) to 545 MTCO2e. (30) Under this scenario, achieving the 1990 emissions level in 2020 would require a reduction of GHG emissions of 118 MTCO2e, or 21.7 percent (down from 30 percent), from the BAU condition.

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 MTCO2e. As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80 MTCO2e, or approximately 16 percent (down from 30 percent), from the BAU condition. (30) (31)

On February 10, 2014, CARB released a Draft Proposed First Update of the Scoping Plan. The draft recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those GWPs, the 427 MTCO2e 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 MTCO2e. (32) Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 MTCO2e (down from 509 MTCO2e), or approximately 15.3 percent (down from 30 percent), from the BAU condition. (30) (31) (32)

Although CARB has released an update to the Scoping Plan and reduction targets from BAU, it is still appropriate to utilize the previous 30% reduction from BAU since the modeling tools available are not able to easily segregate the inclusion of the renewable portfolio standards, and Pavley requirements that are now included in the revised BAU scenario.

<u>California Senate Bill No. 1368 (SB 1368):</u>

In 2006, the State Legislature adopted Senate Bill 1368 ("SB 1368"), which was subsequently signed into law by the Governor (33). SB 1368 directs the California Public Utilities Commission ("CPUC") to adopt a greenhouse gas emission performance standard ("EPS") for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants.

Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the

State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

Senate Bill 97 (SB 97):

Pursuant to the direction of SB 97, OPR released preliminary draft CEQA Guideline amendments for greenhouse gas emissions on January 8, 2009, and submitted its final proposed guidelines to the Secretary for Natural Resources on April 13, 2009 (34). The Natural Resources Agency adopted the Guideline amendments and they became effective on March 18, 2010.

Of note, the new guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance based standards. CEQA Guideline § 15064.4(a)"A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or (2) Rely on a qualitative analysis or performance based standards."

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a Project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emission are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support determination that a Project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See CEQA Guidelines Section 15130(f)).

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific

> requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guideline amendments do not identify a threshold of significance for greenhouse gas emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. Specific GHG language incorporated in the Guidelines' suggested Environmental Checklist (Guidelines Appendix G) is as follows:

VII. GREENHOUSE GAS EMISSIONS

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

<u>Executive Order S-01-07:</u>

On January 18, 2007 California Governor Arnold Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020 (35). The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.

<u>Executive Order B-30-15:</u>

In January 2015, Governor Brown, in his inaugural address and annual report to the Legislature, established supplementary goals which would further reduce GHG emissions over the next 15 years. These goals include an increase in California's renewable energy portfolio from 33% to 50%, a reduction in vehicle petroleum use for cars and trucks by up to 50% measures to double the efficiency of existing buildings, and decreasing emissions associated with heating fuels.

On April 29, 2015 California Governor Jerry Brown, through Executive Order B-30-15 ("BEO") states a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030.

The BEO sets an ambitious new Statewide GHG emissions reduction target of 40% below 1990 levels by 2030 as a "mid-term" benchmark needed to achieve the 80% below 1990 levels by 2050. It should be noted however that this target has not been formally enacted by the Legislature or even CARB. As such, the BEO does not appear to constitute a new regulation or requirement

adopted to implement a statewide, regional or local plan for the reduction of GHG emissions within the context of CEQA.

The Project reduces its GHG emissions to the maximum extent feasible as discussed in this document. At this time, no further analysis is necessary or required by CEQA as it pertains to Executive Order B-30-15.

Additionally, as described previously, the project applicant would not actively interfere with any future City-mandated, state-mandated, or federally-mandated retrofit obligations enacted or promulgated to legally require development City-wide, state-wide, or nation-wide to assist in meeting state-adopted greenhouse gas emissions reduction targets, including that established under Executive Order S-3-05 or Executive Order B-30-15.

Based on the foregoing, the Project does not interfere with the state's implementation of (i) Executive Order B-30-15's target of reducing statewide GHG emissions to 40% below 1990 levels by 2030 or (ii) Executive Order S-3-05's target of reducing statewide GHG emissions to 80% below 1990 levels by 2050 because it does not interfere with the state's implementation of GHG reduction plans described in the CARB's Updated Scoping Plan, including the state providing for 12,000 MW of renewable distributed generation by 2020, the California Building Commission mandating net zero energy homes in the building code after 2020, or existing building retrofits under AB 758. Therefore, the project's impacts on greenhouse gas emissions in the 2030 and 2050 horizon years are less than significant.

<u>Senate Bills 1078 and 107 and Executive Order S-14-08:</u>

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017 (36). SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010 (35). In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020 (37).

<u>Senate Bill 375:</u>

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation (38). SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035.

These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from 5 years to 8 years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

The Southern California Association of Governments (SCAG) is required by law to update the Southern California Regional Transportation Plan (RTP) every four years. The 2012 draft plan has been released, this draft plan differs from past plans because it includes development of a SCS. The RTP/SCS incorporates land use and housing policies to meet the greenhouse gas emissions targets established by the California Air Resource Board (CARB) for 2020 (8% reduction) and 2035 (13% reduction). On April 4, 2012, the Regional Council of the Southern California Association of Governments (SCAG) adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future.

<u>CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds:</u>

Separate from its Scoping Plan approved in December of 2008 (39), CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90 percent statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. These draft thresholds are under revision in response to comments. There is currently no timetable for finalized thresholds at this time.

As currently proposed by CARB, a quantitative threshold of 7,000 metric tons (MT) of CO2e per year for operational emissions (excluding transportation), and performance standards yet to be defined for construction and transportation emissions are under consideration. However, CARB's proposal is not yet final, and thus is not applied to the Project.

<u>South Coast Air Quality Management District Recommendations for Significance Thresholds:</u>

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other

state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential; non-residential; industrial; etc (40). However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for industrial projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent (MTCO2e) as a screening numerical threshold for industrial projects.

The proposed project could result in potentially significant impacts related to greenhouse gas emissions and global climate change if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases.

A numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin (Basin) has not been established by the South Coast Air Quality Management District (SCAQMD) for Projects where it is not the lead agency. However, as an interim threshold based on guidance provided in the CAPCOA CEQA and Climate Change handbook, the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for business park projects (2). This threshold is based on the review of 711 CEQA projects. This threshold has also been adopted by the SCAQMD for business park projects where it is the lead agency. As such, this threshold will be utilized herein to determine if emissions of greenhouse gases from this project will be significant.

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3 PROJECT GREENHOUSE GAS IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant greenhouse gas impact. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related greenhouse gas impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

A numerical threshold for determining the significance of greenhouse gas emissions in the South Coast Air Basin (Basin) has not been established by the South Coast Air Quality Management District (SCAQMD) for Projects where it is not the lead agency. As an interim threshold based on guidance provided in the CAPCOA *CEQA and Climate Change* handbook, the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for business park projects.[5] This threshold is based on the review of 711 CEQA projects. This threshold has also been adopted by the SCAQMD for business park projects where it is the lead agency. This threshold will be utilized herein to determine if emissions of greenhouse gases from this project will be significant.

3.3 PROJECT RELATED GREENHOUSE GAS EMISSIONS

CEQA Guidelines 15064.4 (b) (1) states that a lead agency may use a model or methodology to quantify greenhouse gas emissions associated with a project (41).

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to more accurately calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (42). Accordingly, the latest

[5] http://www.aqmd.gov/hb/2008/December/081231a.htm

version of CalEEMod™ has been used for this Project to determine construction and operational air quality impacts. Output from the model runs for both construction and operational activity are provided in Appendix 3.1

3.4 CONSTRUCTION AND OPERATIONAL LIFE-CYCLE ANALYSIS

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development, infrastructure and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA would be extremely speculative and thus has not been prepared.

3.5 CONSTRUCTION EMISSIONS

The report, Echelon Avenue Commerce Park Air Quality Impact Analysis (Urban Crossroads, Inc., 2016) (Project AQIA) provides additional details on the specific construction-related inputs programmed in the CalEEMod model (43).

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total greenhouse gas emissions for the construction activities, dividing it by a 30-year project life then adding that number to the annual operational phase GHG emissions (44). As such, construction emissions were amortized over a 30 year period and added to the annual operational phase GHG emissions.

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of CO2, CH4, and N2O from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Solid Waste
- Water Supply, Treatment and Distribution

3.6.1 AREA SOURCE EMISSIONS

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.6.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building, the building energy use emissions do not include street lighting[6]. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod default parameters were used.

3.6.3 MOBILE SOURCE EMISSIONS

Vehicles

Project-related operational air quality impacts derive predominantly from mobile sources. In this regard, approximately 89 percent (by weight) of all Project operational-source emissions would be generated by mobile sources (vehicles). Neither the Project Applicant nor the City has any regulatory control over these tail pipe emissions. Rather, vehicle tail pipe source emissions are regulated by CARB and USEPA. As summarized previously herein, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve.

Project mobile source air quality impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Echelon Avenue Commerce Park Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (45). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis.

For the Business Park land use, the vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project would be approximately 81% passenger cars and approximately 19% total trucks. For analysis purposes, 53.15% of all trucks are assumed to be Light-Heavy-Duty (LHD), 4.74% of all trucks are assumed to be Medium-Heavy-Duty (MHD), and 42.11% of all trucks are assumed to be Heavy-Heavy-Duty (HHD). This proportional truck mix by axle type is based on information provided in the Project's traffic study.

[6] The CalEEMod emissions inventory model does not include indirect emission related to street lighting. Indirect emissions related to street lighting are expected to be negligible and cannot be accurately quantified at this time as there is insufficient information as to the number and type of street lighting that would occur.

3.6.3.1 Trip Length

Background

A technical deficiency inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project multiplied by the average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because, for a distribution warehouse center such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the Fontana Commerce Development Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.

Provided below is a summary of the VMT recommendations of the SCAQMD and SCAG, followed by a description of the methodology used to calculate the VMT rates used in this AQIA.

SCAQMD Recommendation

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and business park land use projects (46). The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and business park land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod™ and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length.

Southern California Association of Government (SCAG) Heavy Duty Truck Model

SCAG is comprised of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 190 cities in Southern California, and is the organization charged with addressing and resolving short- and long-term regional policy issues. The SCAG region also consists of 14 subregional entities recognized by the Regional Council as partners in the regional policy planning process. The SCAG region has more than 19 million residents and encompasses more than 38,000 square miles, representing the largest and most diverse region in the country.

SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks.

Approach for Analysis of the Project

Trip lengths and VMT estimates employed in this AQIA report generate vehicular-source emissions that would represent a maximum impact scenario. Other Environmental Impact Reports (EIRs) for similar land use projects within the region have utilized these same or similar estimates. Though the VMT analyzed in this analysis may differ from the Project's traffic impact analysis, to maintain analytic consistency and establish the maximum impact scenario noted above, the following approach has been utilized in calculating emissions associated with vehicles accessing the Project. This approach is consistent with professional industry practice (47) (48) (49).

For passenger car trips, the Los Angeles County CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the South Coast Air Basin (SCAB) as follows. It is appropriate to stop the VMT calculation at the boundary of the SCAB because any activity beyond that boundary would be speculative, this approach is also consistent with professional industry practice.

- Project site to the Port of Los Angeles/Long Beach: 35.9 miles;
- Project site to Banning Pass: 76.2 miles;
- Project site to San Diego County line: 60 miles;
- Project site to Cajon Pass: 47.7 miles;
- Project site to downtown Los Angeles: 20.4 miles.

Assuming that 50% of all delivery trips will travel to and from the Project from the Port of Los Angeles/Long Beach, with the remainder as distribution trips to all other locations, the average truck trip length is calculated as 46 miles.

Two separate model runs were utilized in order to more accurately model emissions resulting from vehicle operations. The first run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars within Los Angeles County and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second run analyzed truck emissions, which incorporated an average truck trip length of 46 miles and a fleet mix obtained from the Project's traffic study as previously described in Section 3.6.3. The estimated emissions resulting from vehicle operations are summarized in Section 3.7. Detailed emission calculations are provided in Appendix 3.1.

3.6.4 SOLID WASTE

Business park land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod™ model using default parameters.

3.6.5 WATER SUPPLY, TREATMENT AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. Unless otherwise noted, CalEEMod™ default parameters were used.

3.7 EMISSIONS SUMMARY

The total amount of Project-related GHG emissions when accounting for applicable regulatory developments and the existing land use GHG emissions would total 3,536.24 MMTCO2e as shown on Table 3-1. The proposed Project would not exceed the SCAQMD's interim threshold of 10,000 MTCO2e per year. Therefore, impacts associated with GHG emissions will be less than significant.

TABLE 3-1: PROJECT GHG EMISSIONS SUMMARY (ANNUAL)

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	34.23	6.23E-03	--	34.36
Area	2.00E-02	5.00E-05	--	2.00E-02
Energy	893.04	0.05	1.00E-02	897.61
Mobile Sources (Trucks)	1,878.66	0.03	0.02	1,879.20
Mobile Sources (Passenger Cars)	346.85	0.01	--	347.16
Waste	62.01	3.66	--	138.98
Water Usage	185.53	1.87	0.05	238.91
Total CO_2E (All Sources)	**3,536.24**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

Table results include scientific notation. *e* is used to represent *times ten raised to the power of* (which would be written as x 10^{b}") and is followed by the value of the exponent

3.8 GREENHOUSE GAS EMISSIONS FINDINGS AND RECOMMENDATIONS

FACTOR NO. 1: The extent to which the project may generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance.

As shown on Table 3-2 the project will result in approximately 3,536.24 $MTCO_2e$ per year; the proposed project would not exceed the SCAQMD's interim threshold of 10,000 $MTCO_2e$ per year. Therefore, a less than significant impact will occur.

FACTOR NO. 2: The extent to which the project may conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

ARB's *Scoping Plan* identifies strategies to reduce California's greenhouse gas emissions in support of AB32. Many of the strategies identified in the Scoping Plan are not applicable at the project level, such as long-term technological improvements to reduce emissions from vehicles. Some measures are applicable and supported by the project, such as energy efficiency. Finally, while some measures are not directly applicable, the project would not conflict with their implementation. Reduction measures are grouped into 18 action categories, as follows:

1. **California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions.** Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap–and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California.[7] Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.
2. **California Light-Duty Vehicle Greenhouse Gas Standards.** Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.
3. **Energy Efficiency.** Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).
4. **Renewables Portfolio Standards.** Achieve 332 percent renewable energy mix statewide.
5. **Low Carbon Fuel Standard.** Develop and adopt the Low Carbon Fuel Standard.
6. **Regional Transportation-Related Greenhouse Gas Targets.** Develop regional greenhouse gas emissions reduction targets for passenger vehicles.
7. **Vehicle Efficiency Measures.** Implement light-duty vehicle efficiency measures.
8. **Goods Movement.** Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.
9. **Million Solar Roofs Program.** Install 3,000 megawatts of solar-electric capacity under California's existing solar programs.
10. **Medium- and Heavy-Duty Vehicles.** Adopt medium- (MD) and heavy-duty (HD) vehicle efficiencies. Aerodynamic efficiency measures for HD trucks pulling trailers 53-feet or longer that include improvements in trailer aerodynamics and use of rolling resistance tires were adopted in 2008 and went into effect in 2010.[8] Future, yet to be determined improvements, includes hybridization of MD and HD trucks.
11. **Industrial Emissions.** Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and

[7] California Air Resources Board. California GHG Emissions – Forecast (2002-2020). October 2010
[8] California Air Resources Board. Scoping Plan Measures Implementation Timeline. October 2010

provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.

12. **High Speed Rail.** Support implementation of a high speed rail system.
13. **Green Building Strategy.** Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.
14. **High Global Warming Potential Gases.** Adopt measures to reduce high warming global potential gases.
15. **Recycling and Waste.** Reduce methane emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials, and mandate commercial recycling. Move toward zero-waste.
16. **Sustainable Forests.** Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. The 2020 target for carbon sequestration is 5 million MTCO2E/YR.
17. **Water.** Continue efficiency programs and use cleaner energy sources to move and treat water.
18. **Agriculture.** In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.

Table 3-2 summarizes the project's consistency with the State Scoping Plan. As summarized, the project will not conflict with any of the provisions of the Scoping Plan and in fact supports seven of the action categories through energy efficiency, water conservation, recycling, and landscaping.

TABLE 3-2: SCOPING PLAN CONSISTENCY SUMMARY

Action	Supporting Measures[9]	Consistency
Cap-and-Trade Program	--	Not Applicable. These programs involve capping emissions from electricity generation, industrial facilities, and broad scoped fuels. Caps do not directly affect business park projects.
Light-Duty Vehicle Standards	T-1	Not Applicable. This is a statewide measure establishing vehicle emissions standards.
Energy Efficiency	E-1	Consistent. The project will include a variety of building, water, and solid waste efficiencies consistent with 2016 CALGREEN requirements.
	E-2	
	CR-1	
	CR-2	
Renewables Portfolio Standard	E-3	Not Applicable. Establishes the minimum statewide renewable energy mix.
Low Carbon Fuel Standard	T-2	Not Applicable. Establishes reduced carbon intensity of transportation fuels.
Regional Transportation-Related Greenhouse Gas Targets	T-3	Not Applicable. This is a statewide measure and is not within the purview of this Project.

[9] Supporting measures can be found at the following link: http://www.arb.ca.gov/cc/scopingplan/2013_update/appendix_b.pdf

Action	Supporting Measures[9]	Consistency
Vehicle Efficiency Measures	T-4	Not Applicable. Identifies measures such as minimum tire-fuel efficiency, lower friction oil, and reduction in air conditioning use.
Goods Movement	T-5	Not applicable. Identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories. While these measures are yet to be implemented and will be voluntary, the proposed Project would not interfere with their implementation.
	T-6	
Million Solar Roofs (MSR) Program	E-4	Consistent. The MSR program sets a goal for use of solar systems throughout the state as a whole. While the project currently does not include solar energy generation, the building roof structure will be designed to support solar panels in the future.
Medium- & Heavy-Duty Vehicles	T-7	Consistent. MD and HD trucks and trailers working from the proposed warehouses will be subject to aerodynamic and hybridization requirements as established by ARB; no feature of the project would interfere with implementation of these requirements and programs.
	T-8	
Industrial Emissions	I-1	Not Applicable. These measures are applicable to large industrial facilities (> 500,000 MTCOE2/YR) and other intensive uses such as refineries.
	I-2	
	I-3	
	I-4	
	I-5	
High Speed Rail	T-9	Not Applicable. Supports increased mobility choice.
Green Building Strategy	GB-1	Consistent. The project will include a variety of building, water, and solid waste efficiencies consistent with 2016 CALGREEN requirements.
High Global Warming Potential Gases	H-1	Not Applicable. The proposed warehouses are not substantial sources of high GWP emissions and will comply with any future changes in air conditioning, fire protection suppressant, and other requirements.
	H-2	
	H-3	
	H-4	
	H-5	
	H-6	

Action	Supporting Measures[9]	Consistency
	H-7	
Recycling and Waste	RW-1	Consistent. The project will be required recycle a minimum of 50 percent from construction activities and warehouse operations per State and City requirements.
	RW-2	
	RW-3	
Sustainable Forests	F-1	Consistent. The project will increase carbon sequestration by increasing on-site trees per the project landscaping plan.
Water	W-1	Consistent. The project will include use of low-flow fixtures and efficient landscaping per State requirements.
	W-2	
	W-3	
	W-4	
	W-5	
	W-6	
Agriculture	A-1	Not Applicable. The project is not an agricultural use.

4 FINDINGS & CONCLUSIONS

The City has not adopted its own numeric threshold of significance for determining impacts with respect to greenhouse gas (GHG) emissions.

However, as an interim threshold based on guidance provided in the CAPCOA CEQA and Climate Change handbook, the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook (1). Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 MTCO2E per year for business park projects (2). This approach has been adopted by the SCAQMD for business park projects where it is the lead agency. This approach is also widely used by the City of Industry and various other cities in the SCAB where the SCAQMD is the lead agency (3). As such, this threshold will be utilized herein to determine if emissions of greenhouse gases from this project will be significant.

As shown on Table 4-1, the Project will result in approximately 3,536.24 metric tons of carbon dioxide equivalents (MTCO2e) per year; the proposed project would not exceed the SCAQMD's interim threshold of 10,000 MTCO2e per year. Therefore, a less than significant impact will occur and no further analysis is required.

Additionally, the Project is consistent with or otherwise not in conflict with, the recommended measures and actions listed in the California Air Resources Board (CARB) December 2008 Scoping Plan (CARB Scoping Plan). The CARB Scoping Plan identifies strategies and measures that development projects can implement in order to achieve the GHG reductions goals set forth in the Global Warming Solutions Act of 2006 (AB 32).

TABLE 4-1: PROJECT GHG EMISSIONS SUMMARY (ANNUAL)

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	34.23	6.23E-03	--	34.36
Area	2.00E-02	5.00E-05	--	2.00E-02
Energy	893.04	0.05	1.00E-02	897.61
Mobile Sources (Trucks)	1,878.66	0.03	0.02	1,879.20
Mobile Sources (Passenger Cars)	346.85	0.01	--	347.16
Waste	62.01	3.66	--	138.98
Water Usage	185.53	1.87	0.05	238.91
Total CO_2E (All Sources)	**3,536.24**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

Table results include scientific notation. *e* is used to represent *times ten raised to the power of* (which would be written as x 10^{b}") and is followed by the value of the exponent

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6 CERTIFICATION

The contents of this greenhouse gas study report represent an accurate depiction of the greenhouse gas impacts associated with the proposed Echelon Avenue Commerce Park. The information contained in this greenhouse gas report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

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PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
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ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

Echelon Construction- Mitigated

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Based on a early 2018 opening year

Off-road Equipment - Based on a 8 hour workday

Off-road Equipment - Equipment doubled due to shortened construction duration

Off-road Equipment - Tractor=crawler tractor; based on a maximum 5 acre disturbance area

Off-road Equipment -

Off-road Equipment - Tractor=crawler tractors

Demolition -

Grading -

Architectural Coating - Based on Rule 1113- all flat, nonflat, and default coatings shall be no more than 50 g/L VOC content

Vehicle Trips - Construction only

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation - During construction activity, all crawler tractors and rubber tired dozers shall be CARB certified Tier 3 or higher

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	300.00	150.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	30.00	50.00
tblEnergyUse	LightingElect	4.29	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	5.62	0.00
tblEnergyUse	T24NG	10.54	0.00
tblGrading	AcresOfGrading	225.00	125.00
tblGrading	AcresOfGrading	20.00	0.00
tblGrading	MaterialImported	0.00	30,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	305.50	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	20.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	WD_TR	6.96	0.00
tblWater	IndoorWaterUseRate	56,973,062.50	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	1.3740	8.5684	6.7229	0.0117	0.5287	0.4470	0.9756	0.1990	0.4166	0.6156	0.0000	1,025.1386	1,025.1386	0.1869	0.0000	1,029.0632
2018	0.1178	7.1400e-003	0.0109	2.0000e-005	9.6000e-004	5.1000e-004	1.4700e-003	2.5000e-004	5.1000e-004	7.6000e-004	0.0000	1.7186	1.7186	1.3000e-004	0.0000	1.7213
Total	**1.4918**	**8.5756**	**6.7338**	**0.0117**	**0.5297**	**0.4475**	**0.9771**	**0.1992**	**0.4172**	**0.6164**	**0.0000**	**1,026.8572**	**1,026.8572**	**0.1870**	**0.0000**	**1,030.7845**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	1.2911	7.7377	6.5545	0.0117	0.3394	0.4097	0.7491	0.1135	0.3838	0.4973	0.0000	1,025.1378	1,025.1378	0.1869	0.0000	1,029.0624
2018	0.1178	7.1400e-003	0.0109	2.0000e-005	9.6000e-004	5.1000e-004	1.4700e-003	2.5000e-004	5.1000e-004	7.6000e-004	0.0000	1.7186	1.7186	1.3000e-004	0.0000	1.7213
Total	**1.4089**	**7.7448**	**6.5654**	**0.0117**	**0.3404**	**0.4102**	**0.7506**	**0.1138**	**0.3843**	**0.4980**	**0.0000**	**1,026.8564**	**1,026.8564**	**0.1870**	**0.0000**	**1,030.7837**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**5.56**	**9.69**	**2.50**	**0.00**	**35.73**	**8.33**	**23.18**	**42.88**	**7.88**	**19.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4901	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	7.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4901**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0000**	**7.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4901	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	7.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4901**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0000**	**7.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/13/2017	5	10	
2	Site Preparation	Site Preparation	1/14/2017	1/27/2017	5	10	
3	Grading	Grading	1/28/2017	4/7/2017	5	50	
4	Building Construction	Building Construction	4/8/2017	11/3/2017	5	150	
5	Paving	Paving	11/4/2017	12/1/2017	5	20	
6	Architectural Coating	Architectural Coating	12/2/2017	1/5/2018	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 125

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 377,025; Non-Residential Outdoor: 125,675 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Crawler Tractors	4	8.00	208	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	208	0.43
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	3	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	2	8.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	13.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	20.00	0.00	3,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	173.00	68.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3800e-003	0.0000	1.3800e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.2135	0.1695	2.0000e-004		0.0106	0.0106		9.9000e-003	9.9000e-003	0.0000	18.3091	18.3091	5.0200e-003	0.0000	18.4146
Total	**0.0202**	**0.2135**	**0.1695**	**2.0000e-004**	**1.3800e-003**	**0.0106**	**0.0120**	**2.1000e-004**	**9.9000e-003**	**0.0101**	**0.0000**	**18.3091**	**18.3091**	**5.0200e-003**	**0.0000**	**18.4146**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	1.7600e-003	1.4000e-003	0.0000	1.1000e-004	2.0000e-005	1.4000e-004	3.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.4362	0.4362	0.0000	0.0000	0.4363
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	4.3000e-004	4.5100e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7719	0.7719	4.0000e-005	0.0000	0.7728
Total	**4.0000e-004**	**2.1900e-003**	**5.9100e-003**	**1.0000e-005**	**9.3000e-004**	**3.0000e-005**	**9.7000e-004**	**2.5000e-004**	**3.0000e-005**	**2.8000e-004**	**0.0000**	**1.2081**	**1.2081**	**4.0000e-005**	**0.0000**	**1.2091**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.4000e-004	0.0000	5.4000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.1233	0.1168	2.0000e-004		6.0800e-003	6.0800e-003		5.8400e-003	5.8400e-003	0.0000	18.3091	18.3091	5.0200e-003	0.0000	18.4146
Total	**0.0105**	**0.1233**	**0.1168**	**2.0000e-004**	**5.4000e-004**	**6.0800e-003**	**6.6200e-003**	**8.0000e-005**	**5.8400e-003**	**5.9200e-003**	**0.0000**	**18.3091**	**18.3091**	**5.0200e-003**	**0.0000**	**18.4146**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	1.7600e-003	1.4000e-003	0.0000	1.1000e-004	2.0000e-005	1.4000e-004	3.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.4362	0.4362	0.0000	0.0000	0.4363
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	4.3000e-004	4.5100e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7719	0.7719	4.0000e-005	0.0000	0.7728
Total	**4.0000e-004**	**2.1900e-003**	**5.9100e-003**	**1.0000e-005**	**9.3000e-004**	**3.0000e-005**	**9.7000e-004**	**2.5000e-004**	**3.0000e-005**	**2.8000e-004**	**0.0000**	**1.2081**	**1.2081**	**4.0000e-005**	**0.0000**	**1.2091**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0314	0.3796	0.2041	2.9000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	26.6888	26.6888	8.1800e-003	0.0000	26.8605
Total	**0.0314**	**0.3796**	**0.2041**	**2.9000e-004**	**0.0903**	**0.0161**	**0.1065**	**0.0497**	**0.0148**	**0.0645**	**0.0000**	**26.6888**	**26.6888**	**8.1800e-003**	**0.0000**	**26.8605**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	5.2000e-004	5.4100e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9263	0.9263	5.0000e-005	0.0000	0.9274
Total	**3.5000e-004**	**5.2000e-004**	**5.4100e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9263**	**0.9263**	**5.0000e-005**	**0.0000**	**0.9274**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0200e-003	0.1358	0.1522	2.9000e-004		5.1500e-003	5.1500e-003		5.1500e-003	5.1500e-003	0.0000	26.6888	26.6888	8.1800e-003	0.0000	26.8605
Total	**7.0200e-003**	**0.1358**	**0.1522**	**2.9000e-004**	**0.0352**	**5.1500e-003**	**0.0404**	**0.0194**	**5.1500e-003**	**0.0245**	**0.0000**	**26.6888**	**26.6888**	**8.1800e-003**	**0.0000**	**26.8605**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	5.2000e-004	5.4100e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9263	0.9263	5.0000e-005	0.0000	0.9274
Total	**3.5000e-004**	**5.2000e-004**	**5.4100e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9263**	**0.9263**	**5.0000e-005**	**0.0000**	**0.9274**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2185	0.0000	0.2185	0.0902	0.0000	0.0902	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2030	2.4498	1.4428	2.1400e-003		0.1052	0.1052		0.0968	0.0968	0.0000	199.0616	199.0616	0.0610	0.0000	200.3424
Total	**0.2030**	**2.4498**	**1.4428**	**2.1400e-003**	**0.2185**	**0.1052**	**0.3237**	**0.0902**	**0.0968**	**0.1870**	**0.0000**	**199.0616**	**199.0616**	**0.0610**	**0.0000**	**200.3424**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0324	0.5086	0.4043	1.4000e-003	0.0321	7.1200e-003	0.0392	8.8000e-003	6.5500e-003	0.0154	0.0000	125.8263	125.8263	9.3000e-004	0.0000	125.8459
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9600e-003	2.8900e-003	0.0300	7.0000e-005	5.4800e-003	5.0000e-005	5.5300e-003	1.4600e-003	5.0000e-005	1.5000e-003	0.0000	5.1460	5.1460	2.8000e-004	0.0000	5.1519
Total	**0.0343**	**0.5115**	**0.4343**	**1.4700e-003**	**0.0376**	**7.1700e-003**	**0.0447**	**0.0103**	**6.6000e-003**	**0.0169**	**0.0000**	**130.9723**	**130.9723**	**1.2100e-003**	**0.0000**	**130.9978**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0852	0.0000	0.0852	0.0352	0.0000	0.0352	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1542	1.9531	1.3789	2.1400e-003		0.0834	0.0834		0.0776	0.0776	0.0000	199.0614	199.0614	0.0610	0.0000	200.3422
Total	**0.1542**	**1.9531**	**1.3789**	**2.1400e-003**	**0.0852**	**0.0834**	**0.1687**	**0.0352**	**0.0776**	**0.1128**	**0.0000**	**199.0614**	**199.0614**	**0.0610**	**0.0000**	**200.3422**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0324	0.5086	0.4043	1.4000e-003	0.0321	7.1200e-003	0.0392	8.8000e-003	6.5500e-003	0.0154	0.0000	125.8263	125.8263	9.3000e-004	0.0000	125.8459
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9600e-003	2.8900e-003	0.0300	7.0000e-005	5.4800e-003	5.0000e-005	5.5300e-003	1.4600e-003	5.0000e-005	1.5000e-003	0.0000	5.1460	5.1460	2.8000e-004	0.0000	5.1519
Total	**0.0343**	**0.5115**	**0.4343**	**1.4700e-003**	**0.0376**	**7.1700e-003**	**0.0447**	**0.0103**	**6.6000e-003**	**0.0169**	**0.0000**	**130.9723**	**130.9723**	**1.2100e-003**	**0.0000**	**130.9978**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4953	4.2763	2.9057	4.3000e-003		0.2865	0.2865		0.2687	0.2687	0.0000	385.2781	385.2781	0.0964	0.0000	387.3024
Total	**0.4953**	**4.2763**	**2.9057**	**4.3000e-003**		**0.2865**	**0.2865**		**0.2687**	**0.2687**	**0.0000**	**385.2781**	**385.2781**	**0.0964**	**0.0000**	**387.3024**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0418	0.4251	0.5735	1.1200e-003	0.0313	6.2400e-003	0.0375	8.9300e-003	5.7400e-003	0.0147	0.0000	99.9107	99.9107	7.3000e-004	0.0000	99.9261
Worker	0.0508	0.0749	0.7795	1.8100e-003	0.1422	1.3100e-003	0.1435	0.0378	1.2100e-003	0.0390	0.0000	133.5398	133.5398	7.2800e-003	0.0000	133.6926
Total	**0.0926**	**0.5000**	**1.3530**	**2.9300e-003**	**0.1735**	**7.5500e-003**	**0.1810**	**0.0467**	**6.9500e-003**	**0.0536**	**0.0000**	**233.4505**	**233.4505**	**8.0100e-003**	**0.0000**	**233.6187**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4953	4.2763	2.9057	4.3000e-003		0.2865	0.2865		0.2687	0.2687	0.0000	385.2777	385.2777	0.0964	0.0000	387.3019
Total	**0.4953**	**4.2763**	**2.9057**	**4.3000e-003**		**0.2865**	**0.2865**		**0.2687**	**0.2687**	**0.0000**	**385.2777**	**385.2777**	**0.0964**	**0.0000**	**387.3019**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0418	0.4251	0.5735	1.1200e-003	0.0313	6.2400e-003	0.0375	8.9300e-003	5.7400e-003	0.0147	0.0000	99.9107	99.9107	7.3000e-004	0.0000	99.9261
Worker	0.0508	0.0749	0.7795	1.8100e-003	0.1422	1.3100e-003	0.1435	0.0378	1.2100e-003	0.0390	0.0000	133.5398	133.5398	7.2800e-003	0.0000	133.6926
Total	**0.0926**	**0.5000**	**1.3530**	**2.9300e-003**	**0.1735**	**7.5500e-003**	**0.1810**	**0.0467**	**6.9500e-003**	**0.0536**	**0.0000**	**233.4505**	**233.4505**	**8.0100e-003**	**0.0000**	**233.6187**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0191	0.2030	0.1473	2.2000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	20.6934	20.6934	6.3400e-003	0.0000	20.8266
Paving	4.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0240**	**0.2030**	**0.1473**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0105**	**0.0105**	**0.0000**	**20.6934**	**20.6934**	**6.3400e-003**	**0.0000**	**20.8266**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	8.7000e-004	9.0100e-003	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5438	1.5438	8.0000e-005	0.0000	1.5456
Total	**5.9000e-004**	**8.7000e-004**	**9.0100e-003**	**2.0000e-005**	**1.6400e-003**	**2.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5438**	**1.5438**	**8.0000e-005**	**0.0000**	**1.5456**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0191	0.2030	0.1473	2.2000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	20.6934	20.6934	6.3400e-003	0.0000	20.8265
Paving	4.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0240**	**0.2030**	**0.1473**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0105**	**0.0105**	**0.0000**	**20.6934**	**20.6934**	**6.3400e-003**	**0.0000**	**20.8265**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	8.7000e-004	9.0100e-003	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5438	1.5438	8.0000e-005	0.0000	1.5456
Total	**5.9000e-004**	**8.7000e-004**	**9.0100e-003**	**2.0000e-005**	**1.6400e-003**	**2.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5438**	**1.5438**	**8.0000e-005**	**0.0000**	**1.5456**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4660					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4300e-003	0.0291	0.0249	4.0000e-005		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003	0.0000	3.4043	3.4043	3.6000e-004	0.0000	3.4119
Total	**0.4704**	**0.0291**	**0.0249**	**4.0000e-005**		**2.3100e-003**	**2.3100e-003**		**2.3100e-003**	**2.3100e-003**	**0.0000**	**3.4043**	**3.4043**	**3.6000e-004**	**0.0000**	**3.4119**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3700e-003	2.0200e-003	0.0210	5.0000e-005	3.8400e-003	4.0000e-005	3.8700e-003	1.0200e-003	3.0000e-005	1.0500e-003	0.0000	3.6022	3.6022	2.0000e-004	0.0000	3.6064
Total	**1.3700e-003**	**2.0200e-003**	**0.0210**	**5.0000e-005**	**3.8400e-003**	**4.0000e-005**	**3.8700e-003**	**1.0200e-003**	**3.0000e-005**	**1.0500e-003**	**0.0000**	**3.6022**	**3.6022**	**2.0000e-004**	**0.0000**	**3.6064**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4660					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4300e-003	0.0291	0.0249	4.0000e-005		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003	0.0000	3.4043	3.4043	3.6000e-004	0.0000	3.4119
Total	**0.4704**	**0.0291**	**0.0249**	**4.0000e-005**		**2.3100e-003**	**2.3100e-003**		**2.3100e-003**	**2.3100e-003**	**0.0000**	**3.4043**	**3.4043**	**3.6000e-004**	**0.0000**	**3.4119**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3700e-003	2.0200e-003	0.0210	5.0000e-005	3.8400e-003	4.0000e-005	3.8700e-003	1.0200e-003	3.0000e-005	1.0500e-003	0.0000	3.6022	3.6022	2.0000e-004	0.0000	3.6064
Total	**1.3700e-003**	**2.0200e-003**	**0.0210**	**5.0000e-005**	**3.8400e-003**	**4.0000e-005**	**3.8700e-003**	**1.0200e-003**	**3.0000e-005**	**1.0500e-003**	**0.0000**	**3.6022**	**3.6022**	**2.0000e-004**	**0.0000**	**3.6064**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-003	6.6900e-003	6.1800e-003	1.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	0.8511	0.8511	8.0000e-005	0.0000	0.8528
Total	**0.1175**	**6.6900e-003**	**6.1800e-003**	**1.0000e-005**		**5.0000e-004**	**5.0000e-004**		**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.8511**	**0.8511**	**8.0000e-005**	**0.0000**	**0.8528**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	4.6000e-004	4.7600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.8676	0.8676	5.0000e-005	0.0000	0.8685
Total	**3.1000e-004**	**4.6000e-004**	**4.7600e-003**	**1.0000e-005**	**9.6000e-004**	**1.0000e-005**	**9.7000e-004**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.8676**	**0.8676**	**5.0000e-005**	**0.0000**	**0.8685**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-003	6.6900e-003	6.1800e-003	1.0000e-005		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	0.8511	0.8511	8.0000e-005	0.0000	0.8528
Total	**0.1175**	**6.6900e-003**	**6.1800e-003**	**1.0000e-005**		**5.0000e-004**	**5.0000e-004**		**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.8511**	**0.8511**	**8.0000e-005**	**0.0000**	**0.8528**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	4.6000e-004	4.7600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.8676	0.8676	5.0000e-005	0.0000	0.8685
Total	**3.1000e-004**	**4.6000e-004**	**4.7600e-003**	**1.0000e-005**	**9.6000e-004**	**1.0000e-005**	**9.7000e-004**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.8676**	**0.8676**	**5.0000e-005**	**0.0000**	**0.8685**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.531767	0.058060	0.178534	0.124864	0.038964	0.006284	0.016861	0.033134	0.002486	0.003151	0.003685	0.000540	0.001671

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4901	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	7.0000e-005
Unmitigated	1.4901	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	7.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4901					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	7.0000e-005
Total	**1.4901**	**0.0000**	**3.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0000**	**7.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4901					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	7.0000e-005
Total	**1.4901**	**0.0000**	**3.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0000**	**7.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Echelon Operations- Trucks

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

On-road Fugitive Dust - Operation run only

Architectural Coating - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - .

Vechicle Emission Factors - .

Vechicle Emission Factors - .

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,675.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	377,025.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	0.00
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	5.62	4.39
tblEnergyUse	T24NG	10.54	8.77
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64

tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblVehicleEF	HHD	0.03	0.42
tblVehicleEF	HHD	0.03	0.42
tblVehicleEF	HHD	0.03	0.42
tblVehicleEF	LDA	0.53	0.00
tblVehicleEF	LDA	0.53	0.00
tblVehicleEF	LDA	0.53	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.53
tblVehicleEF	LHD1	0.04	0.53
tblVehicleEF	LHD1	0.04	0.53
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MH	1.6710e-003	0.00

tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	46.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	2.49	0.44
tblVehicleTrips	SU_TR	0.73	0.44
tblVehicleTrips	WD_TR	6.96	0.44

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.7822	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174
Energy	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	893.0429	893.0429	0.0473	0.0115	897.6091
Mobile	0.4160	5.9481	4.4729	0.0214	0.7338	0.0848	0.8185	0.2000	0.0780	0.2780	0.0000	1,878.6649	1,878.6649	0.0255	0.0000	1,879.1993
Waste						0.0000	0.0000		0.0000	0.0000	62.0137	0.0000	62.0137	3.6649	0.0000	138.9768
Water						0.0000	0.0000		0.0000	0.0000	18.0749	167.4538	185.5287	1.8662	0.0459	238.9343
Total	**2.2103**	**6.0588**	**4.5743**	**0.0221**	**0.7338**	**0.0932**	**0.8270**	**0.2000**	**0.0864**	**0.2865**	**80.0887**	**2,939.1780**	**3,019.2666**	**5.6040**	**0.0574**	**3,154.7368**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.7822	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174
Energy	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	893.0429	893.0429	0.0473	0.0115	897.6091
Mobile	0.4160	5.9481	4.4729	0.0214	0.7338	0.0848	0.8185	0.2000	0.0780	0.2780	0.0000	1,878.6649	1,878.6649	0.0255	0.0000	1,879.1993
Waste						0.0000	0.0000		0.0000	0.0000	62.0137	0.0000	62.0137	3.6649	0.0000	138.9768
Water						0.0000	0.0000		0.0000	0.0000	18.0749	167.4538	185.5287	1.8659	0.0458	238.9054
Total	**2.2103**	**6.0588**	**4.5743**	**0.0221**	**0.7338**	**0.0932**	**0.8270**	**0.2000**	**0.0864**	**0.2865**	**80.0887**	**2,939.1780**	**3,019.2666**	**5.6036**	**0.0573**	**3,154.7079**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.12**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2018	6/18/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4160	5.9481	4.4729	0.0214	0.7338	0.0848	0.8185	0.2000	0.0780	0.2780	0.0000	1,878.6649	1,878.6649	0.0255	0.0000	1,879.1993
Unmitigated	0.4160	5.9481	4.4729	0.0214	0.7338	0.0848	0.8185	0.2000	0.0780	0.2780	0.0000	1,878.6649	1,878.6649	0.0255	0.0000	1,879.1993

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	108.40	108.40	108.40	1,815,096	1,815,096
Parking Lot	0.00	0.00	0.00		
Total	108.40	108.40	108.40	1,815,096	1,815,096

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	46.00	0.00	0.00	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.531500	0.000000	0.047300	0.421200	0.000000	0.000000	0.000000	0.000000	0.000000

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	772.6142	772.6142	0.0450	9.3200e-003	776.4474
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	772.6142	772.6142	0.0450	9.3200e-003	776.4474
NaturalGas Mitigated	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4287	120.4287	2.3100e-003	2.2100e-003	121.1616
NaturalGas Unmitigated	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4287	120.4287	2.3100e-003	2.2100e-003	121.1616

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	2.25675e+006	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4287	120.4287	2.3100e-003	2.2100e-003	121.1616
Total		**0.0122**	**0.1106**	**0.0929**	**6.6000e-004**		**8.4100e-003**	**8.4100e-003**		**8.4100e-003**	**8.4100e-003**	**0.0000**	**120.4287**	**120.4287**	**2.3100e-003**	**2.2100e-003**	**121.1616**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	2.25675e+006	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4287	120.4287	2.3100e-003	2.2100e-003	121.1616
Total		**0.0122**	**0.1106**	**0.0929**	**6.6000e-004**		**8.4100e-003**	**8.4100e-003**		**8.4100e-003**	**8.4100e-003**	**0.0000**	**120.4287**	**120.4287**	**2.3100e-003**	**2.2100e-003**	**121.1616**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	3.27672e+006	739.6402	0.0431	8.9200e-003	743.3098
Parking Lot	146080	32.9740	1.9200e-003	4.0000e-004	33.1376
Total		**772.6142**	**0.0450**	**9.3200e-003**	**776.4474**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	3.27672e+006	739.6402	0.0431	8.9200e-003	743.3098
Parking Lot	146080	32.9740	1.9200e-003	4.0000e-004	33.1376
Total		**772.6142**	**0.0450**	**9.3200e-003**	**776.4474**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.7822	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174
Unmitigated	1.7822	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2913					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4901					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.2000e-004	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174
Total	**1.7822**	**8.0000e-005**	**8.5600e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**5.0000e-005**	**0.0000**	**0.0174**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2913					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4901					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.2000e-004	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174
Total	**1.7822**	**8.0000e-005**	**8.5600e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**5.0000e-005**	**0.0000**	**0.0174**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	185.5287	1.8659	0.0458	238.9054
Unmitigated	185.5287	1.8662	0.0459	238.9343

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	56.9731 / 0	185.5287	1.8662	0.0459	238.9343
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**185.5287**	**1.8662**	**0.0459**	**238.9343**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	56.9731 / 0	185.5287	1.8659	0.0458	238.9054
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**185.5287**	**1.8659**	**0.0458**	**238.9054**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	62.0137	3.6649	0.0000	138.9768
Mitigated	62.0137	3.6649	0.0000	138.9768

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	305.5	62.0137	3.6649	0.0000	138.9768
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**62.0137**	**3.6649**	**0.0000**	**138.9768**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	305.5	62.0137	3.6649	0.0000	138.9768
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**62.0137**	**3.6649**	**0.0000**	**138.9768**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Echelon Operations-Passenger Cars

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	246.37	1000sqft	8.78	246,370.00	0
Parking Lot	415.00	Space	3.73	166,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total acreage: 12.51

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

On-road Fugitive Dust - Operation run only

Architectural Coating - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,675.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	377,025.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	0.00
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	5.62	4.39
tblEnergyUse	T24NG	10.54	8.77
tblLandUse	LotAcreage	5.66	8.78
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64

tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.53	1.00
tblVehicleEF	LDA	0.53	1.00
tblVehicleEF	LDA	0.53	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	LHD2	6.2840e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MCY	3.6850e-003	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MDV	0.12	0.00
tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MH	1.6710e-003	0.00

tblVehicleEF	MH	1.6710e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	OBUS	2.4860e-003	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	SBUS	5.4000e-004	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleEF	UBUS	3.1510e-003	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	ST_TR	2.49	1.89
tblVehicleTrips	SU_TR	0.73	1.89
tblVehicleTrips	WD_TR	6.96	1.89

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.7822	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174
Energy	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	893.0429	893.0429	0.0473	0.0115	897.6091
Mobile	0.1798	0.2850	3.2358	0.0117	1.0488	7.0300e-003	1.0559	0.2785	6.5000e-003	0.2850	0.0000	803.1738	803.1738	0.0348	0.0000	803.9043
Waste						0.0000	0.0000		0.0000	0.0000	62.0137	0.0000	62.0137	3.6649	0.0000	138.9768
Water						0.0000	0.0000		0.0000	0.0000	18.0749	167.4538	185.5287	1.8662	0.0459	238.9343
Total	**1.9741**	**0.3957**	**3.3373**	**0.0124**	**1.0488**	**0.0155**	**1.0643**	**0.2785**	**0.0149**	**0.2934**	**80.0887**	**1,863.6868**	**1,943.7755**	**5.6133**	**0.0574**	**2,079.4418**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.7822	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174
Energy	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	893.0429	893.0429	0.0473	0.0115	897.6091
Mobile	0.1798	0.2850	3.2358	0.0117	1.0488	7.0300e-003	1.0559	0.2785	6.5000e-003	0.2850	0.0000	803.1738	803.1738	0.0348	0.0000	803.9043
Waste						0.0000	0.0000		0.0000	0.0000	62.0137	0.0000	62.0137	3.6649	0.0000	138.9768
Water						0.0000	0.0000		0.0000	0.0000	18.0749	167.4538	185.5287	1.8659	0.0458	238.9054
Total	**1.9741**	**0.3957**	**3.3373**	**0.0124**	**1.0488**	**0.0155**	**1.0643**	**0.2785**	**0.0149**	**0.2934**	**80.0887**	**1,863.6868**	**1,943.7755**	**5.6130**	**0.0573**	**2,079.4130**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.12**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2018	6/18/2018	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1798	0.2850	3.2358	0.0117	1.0488	7.0300e-003	1.0559	0.2785	6.5000e-003	0.2850	0.0000	803.1738	803.1738	0.0348	0.0000	803.9043
Unmitigated	0.1798	0.2850	3.2358	0.0117	1.0488	7.0300e-003	1.0559	0.2785	6.5000e-003	0.2850	0.0000	803.1738	803.1738	0.0348	0.0000	803.9043

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	466.13	466.13	466.13	2,816,556	2,816,556
Parking Lot	0.00	0.00	0.00		
Total	466.13	466.13	466.13	2,816,556	2,816,556

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Industrial Park	16.60	0.00	0.00	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	772.6142	772.6142	0.0450	9.3200e-003	776.4474
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	772.6142	772.6142	0.0450	9.3200e-003	776.4474
NaturalGas Mitigated	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4287	120.4287	2.3100e-003	2.2100e-003	121.1616
NaturalGas Unmitigated	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4287	120.4287	2.3100e-003	2.2100e-003	121.1616

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	2.25675e+006	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4287	120.4287	2.3100e-003	2.2100e-003	121.1616
Total		**0.0122**	**0.1106**	**0.0929**	**6.6000e-004**		**8.4100e-003**	**8.4100e-003**		**8.4100e-003**	**8.4100e-003**	**0.0000**	**120.4287**	**120.4287**	**2.3100e-003**	**2.2100e-003**	**121.1616**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Industrial Park	2.25675e+006	0.0122	0.1106	0.0929	6.6000e-004		8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003	0.0000	120.4287	120.4287	2.3100e-003	2.2100e-003	121.1616
Total		**0.0122**	**0.1106**	**0.0929**	**6.6000e-004**		**8.4100e-003**	**8.4100e-003**		**8.4100e-003**	**8.4100e-003**	**0.0000**	**120.4287**	**120.4287**	**2.3100e-003**	**2.2100e-003**	**121.1616**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	3.27672e+006	739.6402	0.0431	8.9200e-003	743.3098
Parking Lot	146080	32.9740	1.9200e-003	4.0000e-004	33.1376
Total		**772.6142**	**0.0450**	**9.3200e-003**	**776.4474**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	3.27672e+006	739.6402	0.0431	8.9200e-003	743.3098
Parking Lot	146080	32.9740	1.9200e-003	4.0000e-004	33.1376
Total		**772.6142**	**0.0450**	**9.3200e-003**	**776.4474**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.7822	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174
Unmitigated	1.7822	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2913					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4901					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.2000e-004	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174
Total	**1.7822**	**8.0000e-005**	**8.5600e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**5.0000e-005**	**0.0000**	**0.0174**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2913					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4901					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.2000e-004	8.0000e-005	8.5600e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0164	0.0164	5.0000e-005	0.0000	0.0174
Total	**1.7822**	**8.0000e-005**	**8.5600e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**5.0000e-005**	**0.0000**	**0.0174**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	185.5287	1.8659	0.0458	238.9054
Unmitigated	185.5287	1.8662	0.0459	238.9343

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	56.9731 / 0	185.5287	1.8662	0.0459	238.9343
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**185.5287**	**1.8662**	**0.0459**	**238.9343**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	56.9731 / 0	185.5287	1.8659	0.0458	238.9054
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**185.5287**	**1.8659**	**0.0458**	**238.9054**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	62.0137	3.6649	0.0000	138.9768
Mitigated	62.0137	3.6649	0.0000	138.9768

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	305.5	62.0137	3.6649	0.0000	138.9768
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**62.0137**	**3.6649**	**0.0000**	**138.9768**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	305.5	62.0137	3.6649	0.0000	138.9768
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**62.0137**	**3.6649**	**0.0000**	**138.9768**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

APPENDIX D – NOISE REPORT

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Demolition Unmitigated

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residence	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Dozer	No	40		81.7	50.0	0.0
Dozer	No	40		81.7	50.0	0.0

Results

	Calculated (dBA)				Noise Limits (dBA)			
	Day		Evening		Night			
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	89.6	82.6	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A
Total	89.6	86.9	N/A	N/A	N/A	N/A	N/A	N/A

Noise Limit Exceedance (dBA)

Night								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

02-Site Preparation unmitigated.txt
Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Site Preparation Unmitigated

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residence	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Dozer	No	40		81.7	50.0	0.0
Dozer	No	40		81.7	50.0	0.0
Dozer	No	40		81.7	50.0	0.0

Results

	Calculated (dBA)				Noise Limit Exceedance (dBA)		Noise Limits (dBA)		
	Day		Evening		Night		Day	Evening	Night
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	84.0	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Grading Unmitigated

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Grader	No	40	85.0		50.0	0.0
Dozer	No	40		81.7	50.0	0.0
Scraper	No	40		83.6	50.0	0.0
Scraper	No	40		83.6	50.0	0.0
Scraper	No	40		83.6	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA)							Day			Evening			Night		
Equipment			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	83.6	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85.0	88.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Building Construction Unmitigated Mobile

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	50.0	0.0
Crane	No	16		80.6	50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Man Lift	No	20		74.7	50.0	0.0
Man Lift	No	20		74.7	50.0	0.0
Man Lift	No	20		74.7	50.0	0.0
Man Lift	No	20		74.7	50.0	0.0
Man Lift	No	20		74.7	50.0	0.0
Man Lift	No	20		74.7	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA) Day			Evening			Night			Day			Evening			Night		
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane			80.6	72.6			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane			80.6	72.6			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor			84.0	80.0			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor			84.0	80.0			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor			84.0	80.0			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor			84.0	80.0			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor			84.0	80.0			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Tractor                    84.0    80.0        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   74.7    67.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   74.7    67.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   74.7    67.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   74.7    67.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   74.7    67.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   74.7    67.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
                Total      84.0    88.3        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
```

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Building Construction Unmitigated Stationary

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Welder / Torch	No	40		74.0	50.0	0.0
Welder / Torch	No	40		74.0	50.0	0.0
Generator	No	50		80.6	50.0	0.0
Generator	No	50		80.6	50.0	0.0

Results

	Calculated (dBA)				Noise Limits (dBA)				Noise Limit Exceedance (dBA)			
	Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Welder / Torch	74.0	70.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	74.0	70.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	80.6	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	80.6	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	80.6	81.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Paving Unmitigated

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	50.0	0.0
Paver	No	50		77.2	50.0	0.0
Roller	No	20		80.0	50.0	0.0
Roller	No	20		80.0	50.0	0.0
Pavement Scarafier	No	20		89.5	50.0	0.0

Results

	Calculated (dBA)				Noise Limits (dBA)				Noise Limit Exceedance (dBA)			
	Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier	89.5	82.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	89.5	84.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Painting unmitigated

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	50.0	0.0

Results

	Calculated (dBA)				Noise Limits (dBA)				Noise Limit Exceedance (dBA)			
	Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.7	73.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Demolition Mitigated

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residence	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	50.0	20.0
Excavator	No	40		80.7	50.0	20.0
Excavator	No	40		80.7	50.0	20.0
Excavator	No	40		80.7	50.0	20.0
Excavator	No	40		80.7	50.0	20.0
Dozer	No	40		81.7	50.0	20.0
Dozer	No	40		81.7	50.0	20.0

Results

	Calculated (dBA)				Noise Limits (dBA)			
	Day		Evening		Night			
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	69.6	62.6	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	60.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	60.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	60.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	60.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	61.7	57.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	61.7	57.7	N/A	N/A	N/A	N/A	N/A	N/A
Total	69.6	66.9	N/A	N/A	N/A	N/A	N/A	N/A

Noise Limit Exceedance (dBA)

Night								
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Site Preparation Mitigated

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residence	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Tractor	No	40	84.0		50.0	20.0
Tractor	No	40	84.0		50.0	20.0
Tractor	No	40	84.0		50.0	20.0
Tractor	No	40	84.0		50.0	20.0
Dozer	No	40		81.7	50.0	20.0
Dozer	No	40		81.7	50.0	20.0
Dozer	No	40		81.7	50.0	20.0

Results

	Calculated (dBA)				Noise Limits (dBA)			
	Day		Evening		Night			
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	61.7	57.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	61.7	57.7	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	61.7	57.7	N/A	N/A	N/A	N/A	N/A	N/A
Total	64.0	67.6	N/A	N/A	N/A	N/A	N/A	N/A

Noise Limit Exceedance (dBA)

Night											
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Leq											
Tractor	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Grading Mitigated

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Tractor	No	40	84.0		50.0	20.0
Tractor	No	40	84.0		50.0	20.0
Excavator	No	40		80.7	50.0	20.0
Excavator	No	40		80.7	50.0	20.0
Grader	No	40	85.0		50.0	20.0
Dozer	No	40		81.7	50.0	20.0
Scraper	No	40		83.6	50.0	20.0
Scraper	No	40		83.6	50.0	20.0
Scraper	No	40		83.6	50.0	20.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	60.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	60.7	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	65.0	61.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	61.7	57.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	65.0	68.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Building Construction Mitigated Mobile

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	50.0	20.0
Crane	No	16		80.6	50.0	20.0
Tractor	No	40	84.0		50.0	20.0
Tractor	No	40	84.0		50.0	20.0
Tractor	No	40	84.0		50.0	20.0
Tractor	No	40	84.0		50.0	20.0
Tractor	No	40	84.0		50.0	20.0
Tractor	No	40	84.0		50.0	20.0
Man Lift	No	20		74.7	50.0	20.0
Man Lift	No	20		74.7	50.0	20.0
Man Lift	No	20		74.7	50.0	20.0
Man Lift	No	20		74.7	50.0	20.0
Man Lift	No	20		74.7	50.0	20.0
Man Lift	No	20		74.7	50.0	20.0

Results

Calculated (dBA) Day	Evening	Night	Noise Limit Exceedance (dBA) Day	Evening	Night	Noise Limits (dBA) Day	Evening	Night
Equipment	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq	Lmax Leq
Crane	60.6	52.6	N/A	N/A	N/A	N/A	N/A	N/A
Crane	60.6	52.6	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	64.0	60.0	N/A	N/A	N/A	N/A	N/A	N/A

```
Tractor                    64.0    60.0        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   54.7    47.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   54.7    47.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   54.7    47.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   54.7    47.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   54.7    47.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
Man Lift                   54.7    47.7        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
                Total      64.0    68.3        N/A     N/A     N/A     N/A     N/A
 N/A       N/A     N/A     N/A     N/A     N/A     N/A
```

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Building Construction Unmitigated Stationary

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Welder / Torch	No	40		74.0	50.0	20.0
Welder / Torch	No	40		74.0	50.0	20.0
Generator	No	50		80.6	75.0	20.0
Generator	No	50		80.6	75.0	20.0

Results

	Calculated (dBA)				Noise Limits (dBA)				Noise Limit Exceedance (dBA)			
	Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Welder / Torch	54.0	50.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	54.0	50.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	57.1	54.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	57.1	54.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	57.1	58.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Paving Mitigated

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	50.0	20.0
Paver	No	50		77.2	50.0	20.0
Roller	No	20		80.0	50.0	20.0
Roller	No	20		80.0	50.0	20.0
Pavement Scarafier	No	20		89.5	50.0	20.0

Results

	Calculated (dBA)				Noise Limits (dBA)				Noise Limit Exceedance (dBA)			
	Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	57.2	54.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	57.2	54.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	60.0	53.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	60.0	53.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier	69.5	62.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	69.5	64.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 08/25/2016
Case Description: Painting unmitigated

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	50.0	20.0

Results

	Calculated (dBA)				Noise Limits (dBA)				Noise Limit Exceedance (dBA)			
	Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	57.7	53.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	57.7	53.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Echelon Industrial Project
Existing and Project Traffic Noise

TRAFFIC NOISE LEVELS

Project Number: 1A
Project Name: Echelon

Background Information

Model Description:	FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Analysis Scenario(s):	Existing Conditions and Existing Plus Project Conditions
Source of Traffic Volumes:	Urban Crossroads (2016)
Community Noise Descriptor:	L_{dn}: ____ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Traffic Noise Levels

Analysis Condition Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor[1]	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hou dB(A) L_{eq}	24-Hour dB(A) CNEL
Existing Conditions													
Loukelton Street													
East of Echelon Avenue	Residential	2	0	221	1,989	25	75	0	0	1.8%	0.7%	54.2	52.9
West of Echelon Ave (Project Front)	Industrial	2	0	98	882	25	75	0	0	1.8%	0.7%	50.7	49.4
Echelon Avenue													
Between E. Amar Rd and Loukelton	Residential	2	0	326	2,934	25	75	0	0	1.8%	0.7%	55.9	54.6
Existing Plus Project Conditions													
Loukelton Street													
East of Echelon Avenue	Residential	2	0	221	1,989	25	75	0	0	1.8%	0.7%	54.2	52.9
West of Echelon Ave (Project Front)	Industrial	2	0	162	1,458	25	75	0	0	1.8%	0.7%	52.8	51.6
Echelon Avenue													
Between E. Amar Rd and Loukelton	Residential	2	0	390	3,510	25	75	0	0	1.8%	0.7%	56.7	55.4

[1] Distance is from the centerline of the roadway segment to the receptor location.

APPENDIX E – TIA REPORT

Echelon Avenue Commerce Park

TRAFFIC IMPACT ANALYSIS

CITY OF INDUSTRY

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing Plus Project
EIR	Environmental Impact Report
FHWA	Federal Highway Administration
HCM	Highway Capacity Manual
ICU	Intersection Capacity Utilization
ITE	Institute of Transportation Engineers
LA	Los Angeles
LOS	Level of Service
MTA	Metropolitan Transportation Authority
MUTCD	Manual on Uniform Traffic Control Devices
N/A	Not Applicable
PCE	Passenger Car Equivalents
PHF	Peak Hour Factor
Project	Echelon Avenue Commerce Park
RSA	Regional Statistical Area
RTPA	Regional Transportation Planning Agency
SANBAG	San Bernardino Association of Governments
SCAG	Southern California Association of Governments
TIA	Traffic Impact Analysis
v/c	Volume to Capacity

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1 INTRODUCTION

This report presents the results of the traffic impact analysis (TIA) for the proposed Echelon Avenue Commerce Park ("Project"), which is located on the southwest corner of Echelon Avenue and Loukelton Street in the City of Industry, as shown on Exhibit 1-1. The findings of this TIA have been compared to the findings published in the City of Industry General Plan Update Environmental Impact Report (EIR). [1] It should be noted that the intersections of Hacienda Boulevard at Valley Boulevard and Azusa Avenue at Hurley Street at the two study area intersections that overlap.

The purpose of this TIA is to evaluate the potential impacts to traffic and circulation associated with the development of the proposed Project, and to recommend improvements to mitigate impacts considered significant in comparison to established regulatory thresholds. The study follows Appendix D of the Los Angeles County Congestion Management Program (CMP). [1]

1.1 PROJECT OVERVIEW

It is our understanding that the Project is proposed to consist of 246,373 square feet (sf) of business park spread over 7 buildings. For the purposes of this analysis, it is assumed that the Project will be developed in a single phase with an Opening Year of 2018.

The Project is anticipated to generate a net total of approximately 701 net passenger car equivalent (PCE) trip-ends per day with 70 net PCE AM peak hour trips and 64 net PCE PM peak hour trips. The assumptions and methods used to estimate the Proposed Project's trip generation characteristics are discussed in detail in Section 4.1 *Project Trip Generation* of this report.

1.2 ANALYSIS SCENARIOS

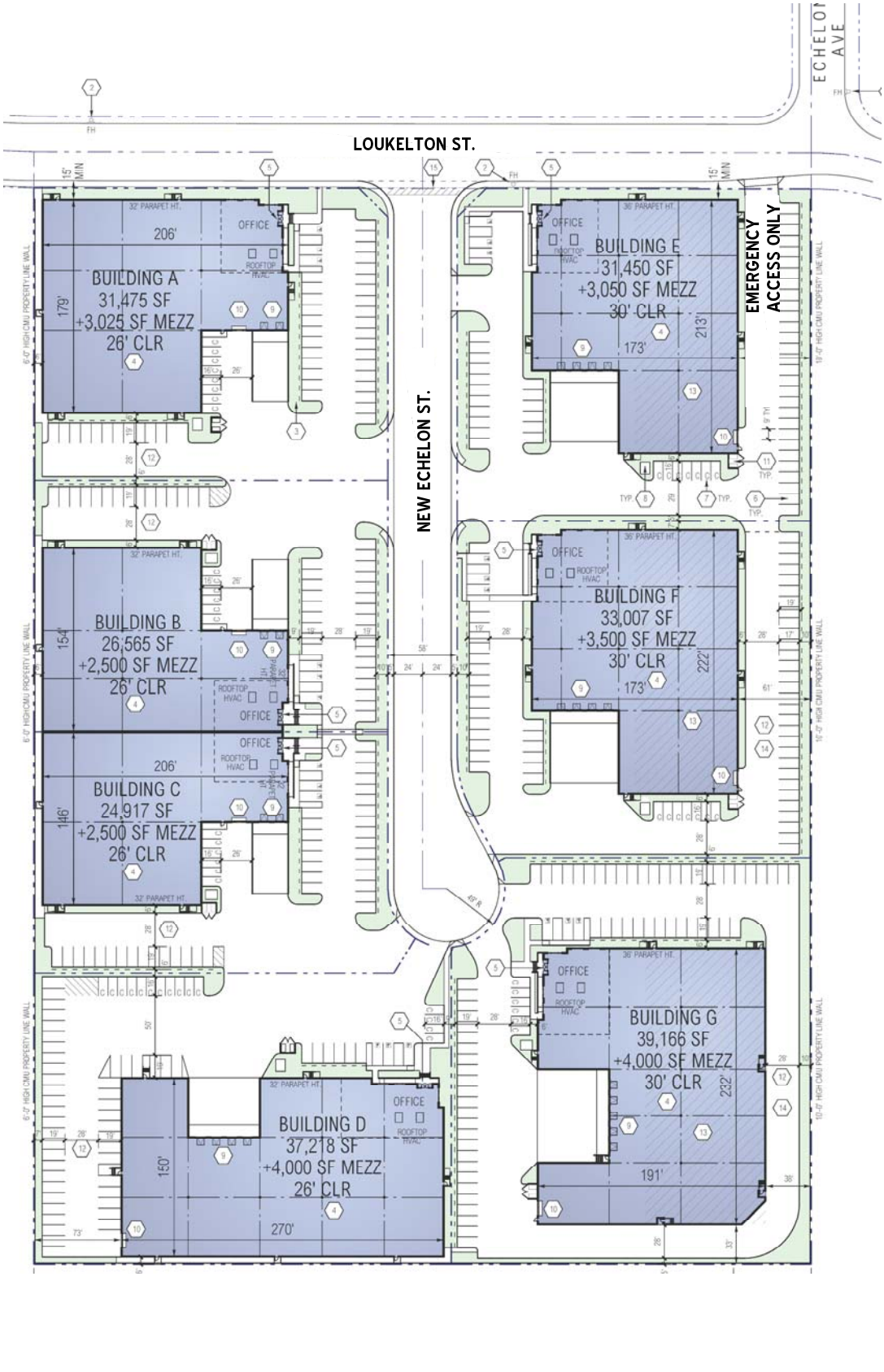
For the purposes of this traffic study, potential impacts to traffic and circulation have been assessed for each of the following scenarios:

- Existing (2016) Conditions
- Existing plus Project (E+P) Conditions
- Opening Year (2018) Without Project
- Opening Year (2018) With Project
- Horizon Year (2040) With Project
- Horizon Year (2040) Without Project

1.2.1 EXISTING (2016) CONDITIONS

Information for Existing conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

EXHIBIT 1-1: PRELIMINARY SITE PLAN



1.2.2 EXISTING PLUS PROJECT CONDITIONS

The Existing plus Project (E+P) analysis determines whether or not significant traffic impacts would occur on the existing roadway system with the addition of Project traffic. The E+P analysis is intended to identify the Project-specific impacts associated solely with the development of the proposed Project based on a comparison of the E+P traffic conditions to Existing conditions.

1.2.3 OPENING YEAR CUMULATIVE (2018) CONDITIONS

The Opening Year Cumulative conditions analysis determines the Project's contribution to near-term cumulative traffic impacts based on a comparison of the "With Project" traffic scenario to the "Without Project" traffic scenario. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2016) conditions of 1.0 percent is included for Opening Year Cumulative traffic conditions, as well as traffic generated by the Project.

The generalized growth factors provided in the 2010 Los Angeles (LA) County CMP [1] indicates a growth factor of 1.046 for ten years (2010 to 2020) or a compounded annual growth of 0.45% per year for the Regional Statistical Area (RSA) 26 in which the Project is located. As such, the analysis is consistent with the CMP guidelines and has utilized an annual growth rate of 0.5% per year for a total of 1.0% for Opening Year Cumulative (2018) traffic conditions.

1.2.4 HORIZON YEAR (2040) CONDITIONS

The Horizon Year conditions analysis is utilized to determine if improvements funded through local and regional transportation mitigation fee programs, or other approved funding mechanism can accommodate long-term cumulative traffic growth at the target LOS identified by the City of Industry and surrounding jurisdictions.

Horizon Year Without Project traffic conditions include an ambient traffic growth factor of 12.7% (0.5% annual growth compounded over 24 years) based on the near-term growth factors provided in LA County CMP for RSA 26, and in excess of the longer range growth projections. A growth factor of 1.106 was estimated for 25 years (from 2010 to 2035) in LA County CMP, which is equivalent to 0.4% per year growth. Although the Horizon Year growth rate is different than the Opening Year Cumulative growth rate due to the fact that the LA County CMP provides different growth factors for year 2020 which was used to interpolate the growth factor for the Opening Year Cumulative (2018) and for the Year 2040 which was used to represent the Horizon Year, the same (more conservative) growth rate has been applied to both analysis scenarios. In addition, traffic generated by cumulative projects that could affect the study intersections was added on top of the ambient growth.

1.3 STUDY AREA

The potential impact study area was defined in coordination with the City of Industry staff and in conformance with the requirements of the CMP guidelines. Based on these guidelines, the

minimum area to be studied shall include any intersections at which the proposed Project will add 50 or more peak hour trips.

9 study area intersection locations shown on Exhibit 1-2, and listed in Table 1-1, were selected for this TIA based on the City of Industry's traffic study requirements that require analysis of intersection locations in which a proposed Project is anticipated to contribute 50 or more peak-hour trips in addition to additional locations added at the request of City staff. Intersections where the Project is anticipated to contribute 50 or more peak hour trips are denoted with an (*) in the table below.

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction	CMP?
1	Hacienda Bl. / Amar Rd.	La Puente	No
2	Hacienda Bl. / Nelson Av.	Industry, La Puente	No
3	Hacienda Bl. / Valley Bl.	Industry	No
4	New Echelon St. / Loukelton St. – Future Intersection (*)	Industry	No
5	Echelon Av. / Amar Rd. (*)	Industry, LA County	No
6	Echelon Av. / Loukelton St. (*)	Industry, LA County	No
7	Valinda Av. / Amar Rd.	Covina, LA County	No
8	Azusa Av. / Amar Rd.	Covina, LA County	Yes
9	Azusa Av. / Hurley St.	Industry	No

The CMP study area intersections are anticipated to operate at LOS E or better with the implementation of planned improvements or improvements recommended in this traffic study.

1.4 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing, E+P, Opening Year Cumulative (2018), and Horizon Year (2040) traffic conditions.

Existing (2016) Conditions

For Existing traffic conditions, all the study area intersections were found to operate at an acceptable level of service (LOS) based on the applicable jurisdiction's LOS standard with the exception of the following intersections:

- Hacienda Bl. / Amar Rd. (#1) – LOS E PM peak hour only
- Hacienda Bl. / Valley Bl. (#3) – LOS E AM peak hour; LOS F PM peak hour

E+P Conditions

For E+P traffic conditions, there are no additional intersections anticipated to operate at an unacceptable LOS, in addition to those currently operating at a deficient LOS under Existing (2016) traffic conditions. In addition, the addition of Project traffic is anticipated to change the volume-to-capacity (v/c) by less than 2 percent (0.02) at the existing deficient study area intersections. As such, the addition of Project traffic does not result in a significant impact at the study area intersections based on the City of Industry's LOS threshold of significance.

EXHIBIT 1-2: LOCATION MAP

LEGEND:

- 0 = EXISTING INTERSECTION ANALYSIS LOCATION
- 0 = FUTURE INTERSECTION ANALYSIS LOCATION

N

Opening Year Cumulative (2018) Conditions

For Opening Year Cumulative (2018) traffic conditions, the following additional study area intersection is anticipated to operate at an unacceptable LOS, in addition to those previously identified under Existing (2016) traffic conditions:

- Azusa Avenue / Hurley St. (#9) – LOS E AM and PM peak hours

The addition of Project traffic is anticipated to change the v/c by less than 2 percent (0.02) at each of the 3 deficient study area intersections. As such, the addition of Project traffic does not result in a significant cumulative impact at the study area intersections based on the City of Industry's threshold of significance.

Horizon Year (2040) Conditions

For Horizon Year (2040) traffic conditions, the following additional study area intersections are anticipated to operate at an unacceptable LOS, in addition to those previously identified under Existing (2016) and Opening Year Cumulative (2018) traffic conditions:

- Hacienda Bl. / Nelson Av. (#2) – LOS E AM peak hour only
- Azusa Av. / Amar Rd. (#8) – LOS E PM peak hour only

The addition of Project traffic is anticipated to change the v/c by less than 2 percent (0.02) at each of the 5 deficient study area intersections. As such, the addition of Project traffic does not result in a significant cumulative impact at the study area intersections based on the City of Industry's threshold of significance.

The study area includes the following two analysis locations that were also evaluated as part of the City of Industry's General Plan Update:

- Hacienda Bl. / Valley Bl. (#3)
- Azusa Avenue / Hurley St. (#9)

The findings in this TIA are consistent with those in the General Plan Update, which recognizes that these locations would operate at unacceptable levels under long-range traffic conditions without additional improvements. However, as noted previously, the addition of Project traffic is less than cumulatively considerable as the change in v/c does not meet the City of Industry's threshold of significance for deficient intersections.

1.5 RECOMMENDED IMPROVEMENTS

The Project's contribution to the study area intersections were found to be less than significant. As such, no improvements have been recommended at the study area intersections.

1.6 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements throughout LA County are typically funded through a combination of direct Project mitigation and fair share contributions. It is recommended that the Project Applicant contribute towards the City of Industry's currently approved

transportation fee program. Based on discussions with City staff, the City of Industry does not have a Development Impact Fee (DIF) program in place and there are no applicable regional fee programs. However, a regional fee program is currently in the process of being developed for Los Angeles County by the Metropolitan Transportation Authority (MTA), the regional transportation planning agency (RTPA). Therefore, regional congestion mitigation fees for projects located within the City of Industry have not yet been established.

1.7 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

The Project is proposed to access Loukelton Street via New Echelon Street. New Echelon Street is proposed to be a full access driveway providing access to the site. Regional access to the Project site will be provided by the I-10 Freeway to the north and the SR-60 Freeway to the south via Hacienda Boulevard/Glendora Avenue and Azusa Avenue.

The site adjacent roadway of Loukelton Street is currently built to its ultimate number of travel lanes as indicated in the City of Industry General Plan Circulation Element. Additional curb, gutter and parkway improvements are recommended along the Project's frontage consistent with the City of Industry's standards, as specified in the Project's final conditions of approval.

1.7.1 SITE ACCESS IMPROVEMENTS

The recommended site access driveway improvements for the Project are described below. Exhibit 1-3 illustrates the on-site and site adjacent recommended roadway lane improvements. Construction of on-site and site adjacent improvements shall occur in conjunction with adjacent Project development activity or as needed for Project access purposes. The following intersection improvements consist of improvements to the Project egress/ingress driveways only, while lanes along S. Wilmington Avenue remain consistent with existing conditions.

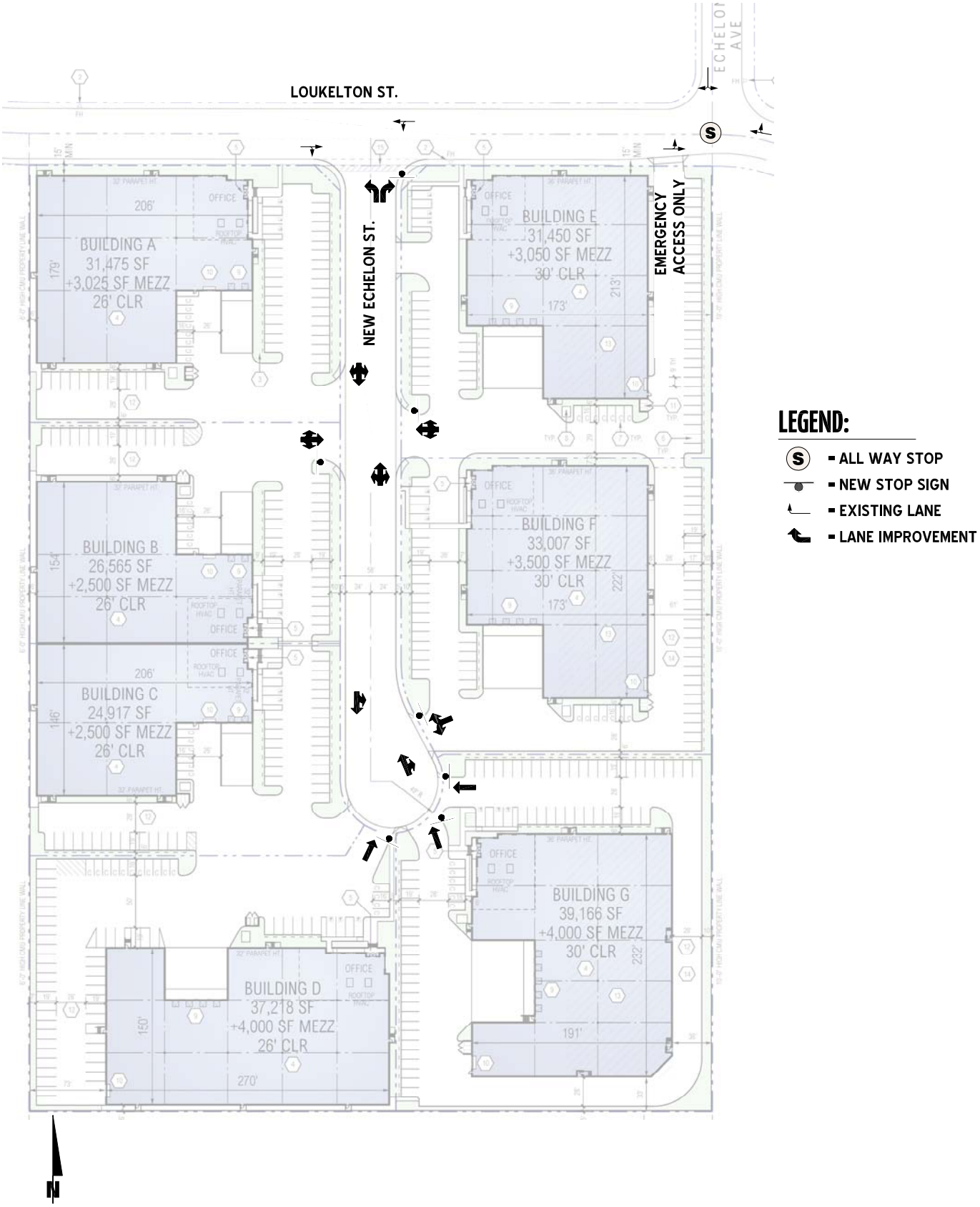
New Echelon Street / Loukelton Street – Install a stop control on the northbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-right turn lane.
- Southbound Approach: Not Applicable (N/A)
- Eastbound Approach: One shared through-right turn lane.
- Westbound Approach: One shared left-through lane.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point shall be designed to comply with standard Caltrans and City of Industry sight distance standards; compliance will be determined at the time of preparation of final grading, landscape and street improvement plans.

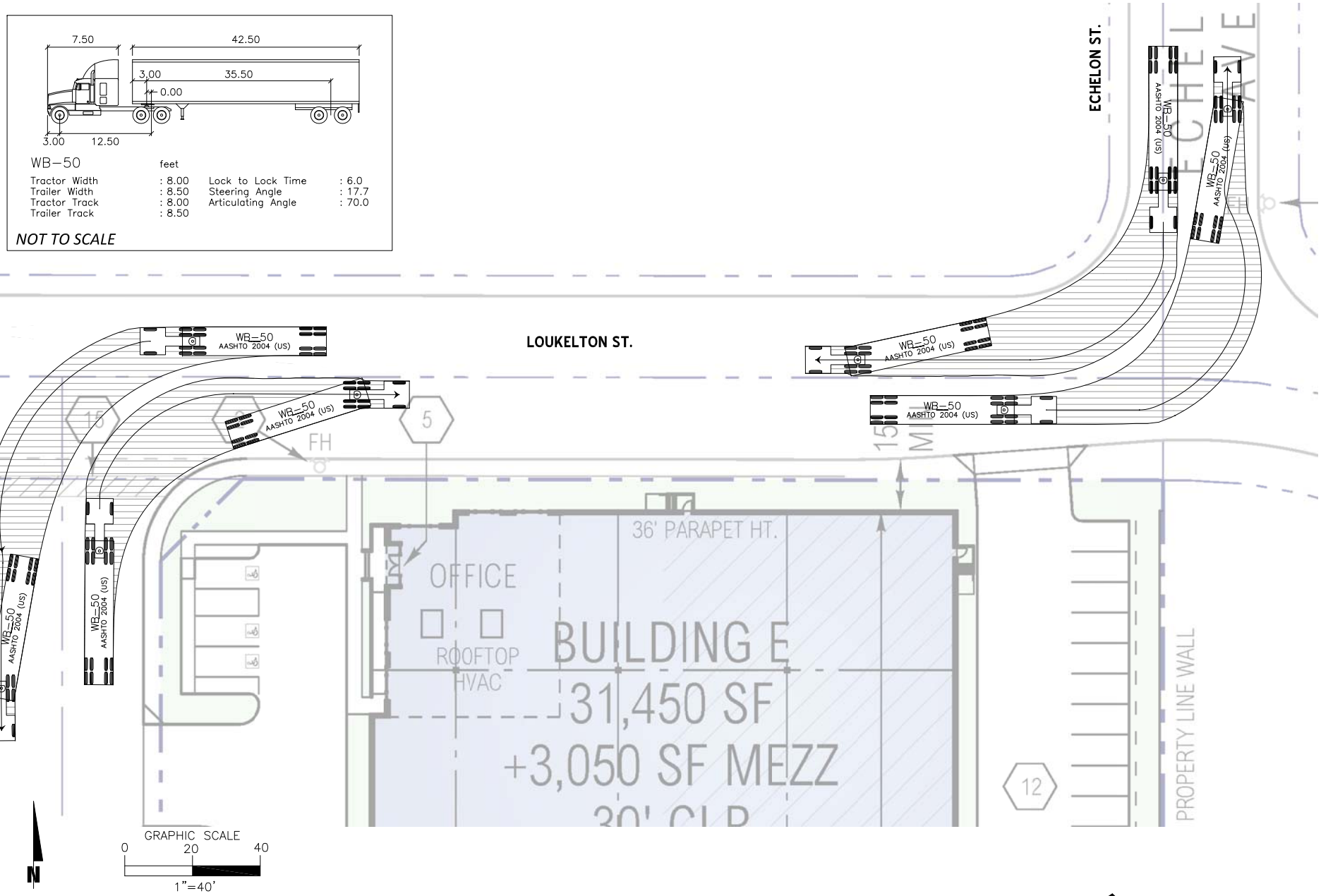
EXHIBIT 1-3: SITE ACCESS RECOMMENDATIONS



1.8 TRUCK ACCESS AND CIRCULATION

Each of the buildings proposed as part of the Project include 2-5 dock doors each, which would likely be utilized by delivery trucks (WB-50). A WB-50 (industry design vehicle standard) truck is a large semitrailer, measuring approximately 55-feet in length. Due to the typical wide turning radius of trucks, a truck turning template has been overlaid on the site plan at each applicable Project driveways and site adjacent intersection anticipated to be utilized by trucks in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turning maneuvers (see Exhibit 1-4). As shown, the Project driveway (New Echelon Street) and site adjacent intersection of Echelon Avenue and Loukelton Street are anticipated to accommodate the wide turning radius of the trucks with the proposed/existing curb radius.

EXHIBIT 1-4: TRUCK ACCESS



2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are generally consistent with LA County CMP traffic study guidelines. [1]

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. LOS analysis was conducted to determine existing traffic conditions using the Intersection Capacity Utilization (ICU) methodology for signalized study intersections in the City of Industry. The 2010 Highway Capacity Manual (HCM) [2] methodology was used to determine LOS's for unsignalized intersections in those cities. In addition, 2010 HCM methodology was also utilized to evaluate the signalized study area intersections, for comparative purposes.

The HCM 2010 methodology expresses the LOS at an intersection in terms of average control delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Industry requires signalized intersections to be evaluated through ICU analysis which compares the peak hour traffic volumes to intersection capacity. Lane capacities of 1,600 vehicles per hour of green time have been assumed for the ICU calculations for the through lanes and 2,880 for dual turn lanes. 0.10 of v/c assumed representing 10 seconds of delay for the yellow and all-red signal indication and inherent vehicle delay between cycles with an assumed signal cycle of 100 seconds. The ICU LOS definitions based on v/c ratio are presented in Table 2-1.

TABLE 2-1 INTERSECTION CAPACITY UTILIZATION (ICU) LOS DEFINITIONS

Level of Service	Critical Volume to Capacity Ratio
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

Source: 2010 LA County CMP

As noted previously, the 2010 HCM methodology was also utilized to evaluate the signalized study area intersections, for comparative purposes. [2] Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-2.

TABLE 2-2: SIGNALIZED INTERSECTION HCM 2010 LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM 2010

The traffic modeling and signal timing optimization software package Synchro (Version 9.1) has been utilized to analyze signalized intersections within the study area based on the HCM 2010 methodology. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM 2010. [2] Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The LOS and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network. Traffix (Version 8.0) has been utilized to evaluate the signalized study area intersections using the ICU methodology.

For HCM 2010 analysis locations, the peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15 minute volumes. Common practice for LOS analysis is to use a peak 15-mintue rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios for HCM intersections. ICU intersections have assumed a PHF of 1.00 per the ICU methodology. Per Chapter 4 of the HCM 2010, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. [2] As such, new intersections have been conservatively evaluated with a PHF of 0.92.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Industry requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM 2010. [2] The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-3).

TABLE 2-3: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay	Level of Service, V/C	Level of Service, V/C
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with	> 50.00	F	F

Source: HCM 2010

At two-way or side-street stop-controlled intersections, The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole. For all-way stop controlled intersections, LOS is based solely on control delay for assessment of LOS at the approach and intersection levels.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TIA uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, as amended by *the MUTCD 2014 California Supplement*, for all study area intersections. [3]

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. Both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement* indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. [3] Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for Existing traffic conditions. Warrant 3 criteria are basically identical for both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement*. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future unsignalized intersections have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets. Traffic signal warrant analyses were performed for the following unsignalized study area intersection (see Table 2-4):

TABLE 2-4: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction	CMP?
4	New Echelon St. / Loukelton St. – Future Intersection	Industry	No
6	Echelon Av. / Loukelton St.	Industry, LA County	No

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 LOS CRITERIA

The definition of an intersection deficiency has been obtained from each of the applicable surrounding jurisdictions.

2.4.1 CITY OF INDUSTRY

The City of Industry General Plan requires that LOS D or better be maintained at intersections on the Roadway Classification Plan (General Plan Policy C1-2). As such, intersections operating at LOS E or F will be considered deficient.

2.4.2 CITY OF LA PUENTE

The City of La Puente General Plan requires that LOS D or better be maintained at intersections within residential areas and LOS E or better in commercial areas. As such, intersections operating at LOS E or F will be considered deficient.

2.4.3 CITY OF WEST COVINA

The City of West Covina General Plan requires that LOS D or better be maintained at intersections. As such, intersections operating at LOS E or F will be considered deficient.

2.4.4 LA COUNTY CMP

The CMP definition of deficiency is based on maintaining a level of service standard of LOS E or better. There are no CMP facilities identified by MTA in their 2010 CMP within the study area. [1]

2.5 THRESHOLDS OF SIGNIFICANCE

As the City of Industry does not have their own thresholds of significance, the following thresholds of significance consistent with LA County CMP will be utilized to determine whether the addition of Project traffic at a study intersection results in a significant impact:

- A significant impact occurs at a signalized intersection if the addition of Project trips causes the peak hour LOS to fall from an acceptable LOS to an unacceptable LOS and the proposed Project increases the demand (volume to capacity or V/C) by 0.02.
- A significant impact occurs at a signalized intersection if the addition of Project trips to an intersection that is currently operating at an unacceptable LOS (i.e., LOS E or F) causes the V/C to increase by 0.02 or more.
- A significant impact occurs at an unsignalized intersection if the addition of project trips causes the peak hour LOS to fall from acceptable LOS to an unacceptable LOS.

Although LOS results are provided for both the ICU and HCM methodologies, the ICU analysis has been utilized for the purposes of determining significant impacts, consistent with the CMP guidelines.

2.6 SB 743 REQUIREMENTS

Impacts associated with vehicle miles traveled (VMT) to address SB 743 requirements have not been evaluated as part of this traffic study. It is anticipated that this Project would be well underway in the environmental process prior to early 2017, and would likely not be affected by SB 743. The Project traffic consultant is aware that the specific requirements and traffic impact analysis guidelines for SB 743 have not yet been prepared. Once those guidelines have been prepared and are finalized, the Project traffic consultant would review them to determine what analysis, if any, needs to be prepared.

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Industry General Plan Circulation Network, and a review of existing peak hour intersection operations and traffic signal warrants.

3.1 EXISTING CIRCULATION NETWORK

The study area includes a total of 6 existing and future intersections as shown previously on Exhibit 1-2. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF INDUSTRY GENERAL PLAN TRANSPORTATION AND INFRASTRUCTURE ELEMENT

As previously noted, the Project site is located within the City of Industry. Exhibit 3-2 shows the City of Industry General Plan Circulation Element, and Exhibit 3-3 illustrates the City of Industry General Plan roadway cross-sections. [4]

The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Industry General Plan Circulation Element, are described subsequently.

Major Highways: Major Highways primarily serve through-traffic and major activity centers, carry high volumes of traffic, and provide access to abutting properties as a secondary function. The following study area roadways are classified as Major Highways:

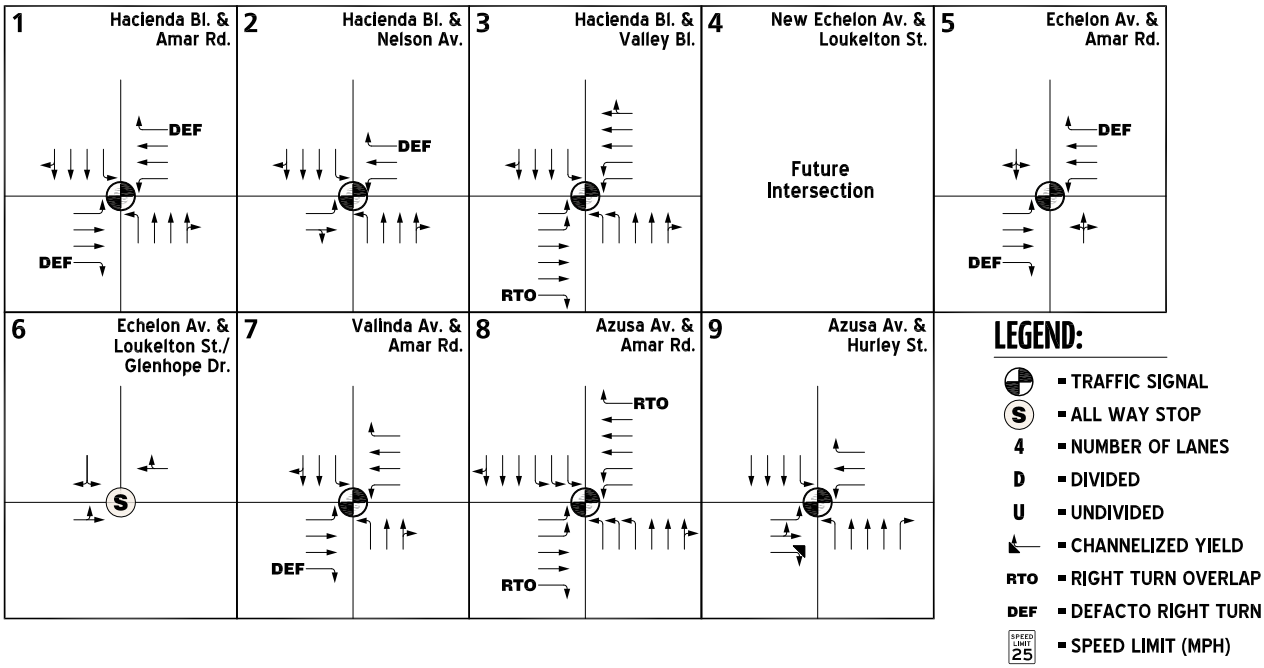
- Hacienda Boulevard
- Amar Road
- Valley Boulevard
- Azusa Avenue

Portions of the study are also lie within the City of West Covina, City of La Puente, and County of Los Angeles. Exhibit 3-4 shows the City of West Covina General Plan Circulation Plan. Exhibit 3-5 shows the City of La Puente Roadway Plan, and Exhibit 3-6 illustrates the City of La Puente General Plan roadway cross-sections. Exhibit 3-7 shows the Los Angeles County Highway Plan Policy Map.

3.3 TRANSIT SERVICE

The study area is currently served by the Foothill Transit Bus Service with routes along Hacienda Boulevard, Amar Road, and Azusa Avenue. The study area is also served by the Metro Line bus along Valley Boulevard. The Metrolink (Riverside Line, Amtrak Sunset Limited/Texas Eagle, and Union Pacific run within the study area as well, north of the SR-60 Freeway. The Puente Hills Mall TransCenter is located on Azusa Avenue, south of the SR-60 Freeway. The existing transit routes serving the City of Industry is shown on Exhibit 3-8.

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



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URBAN CROSSROADS

EXHIBIT 3-2: CITY OF INDUSTRY GENERAL PLAN ROADWAY CLASSIFICATION PLAN

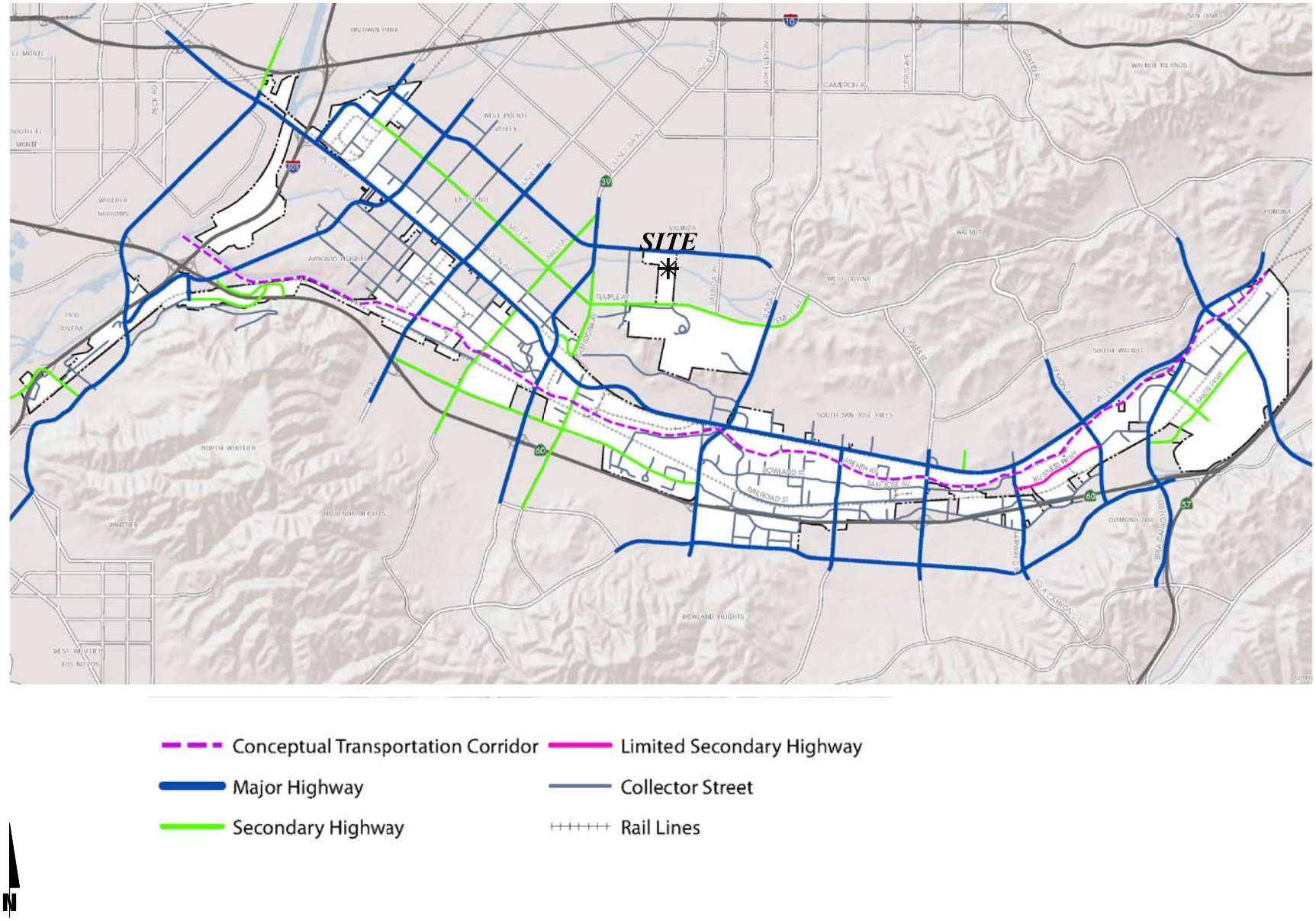
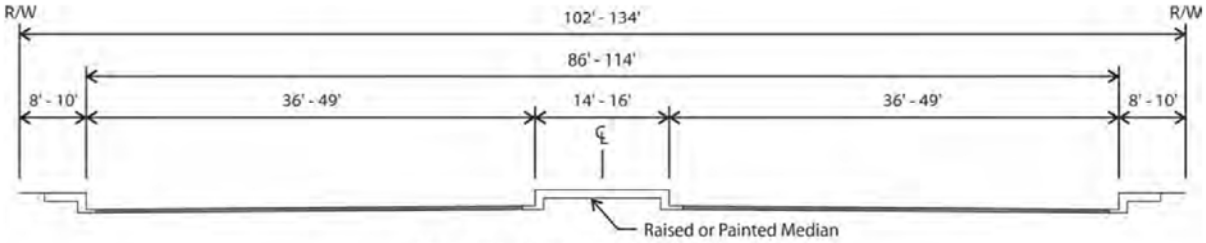
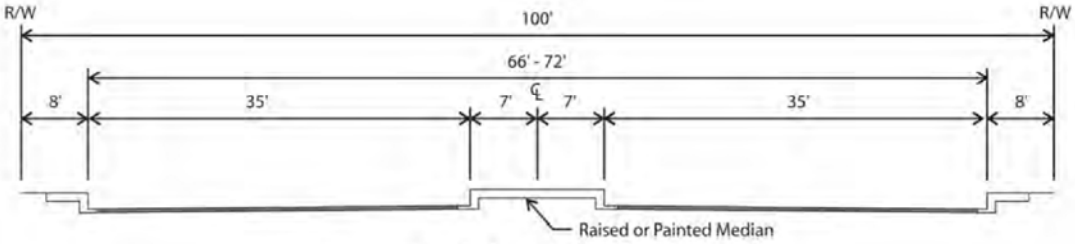


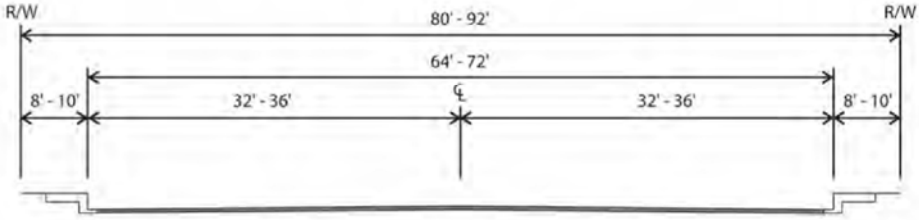
EXHIBIT 3-3: CITY OF INDUSTRY GENERAL PLAN STREET CROSS SECTION



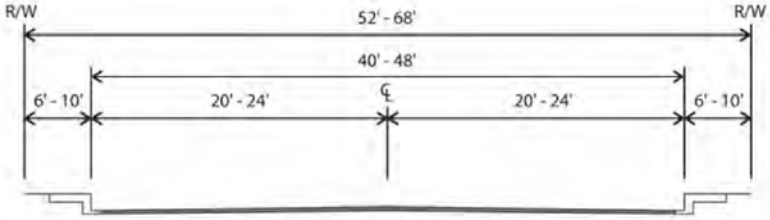
Major Highway (6 Lanes Divided)



Secondary Highway (4 Lanes Divided)



Limited Secondary Highway (4 Lanes Undivided)



Collector (2 Lanes Undivided)

EXHIBIT 3-4: CITY OF WEST COVINA GENERAL PLAN CIRCULATION PLAN

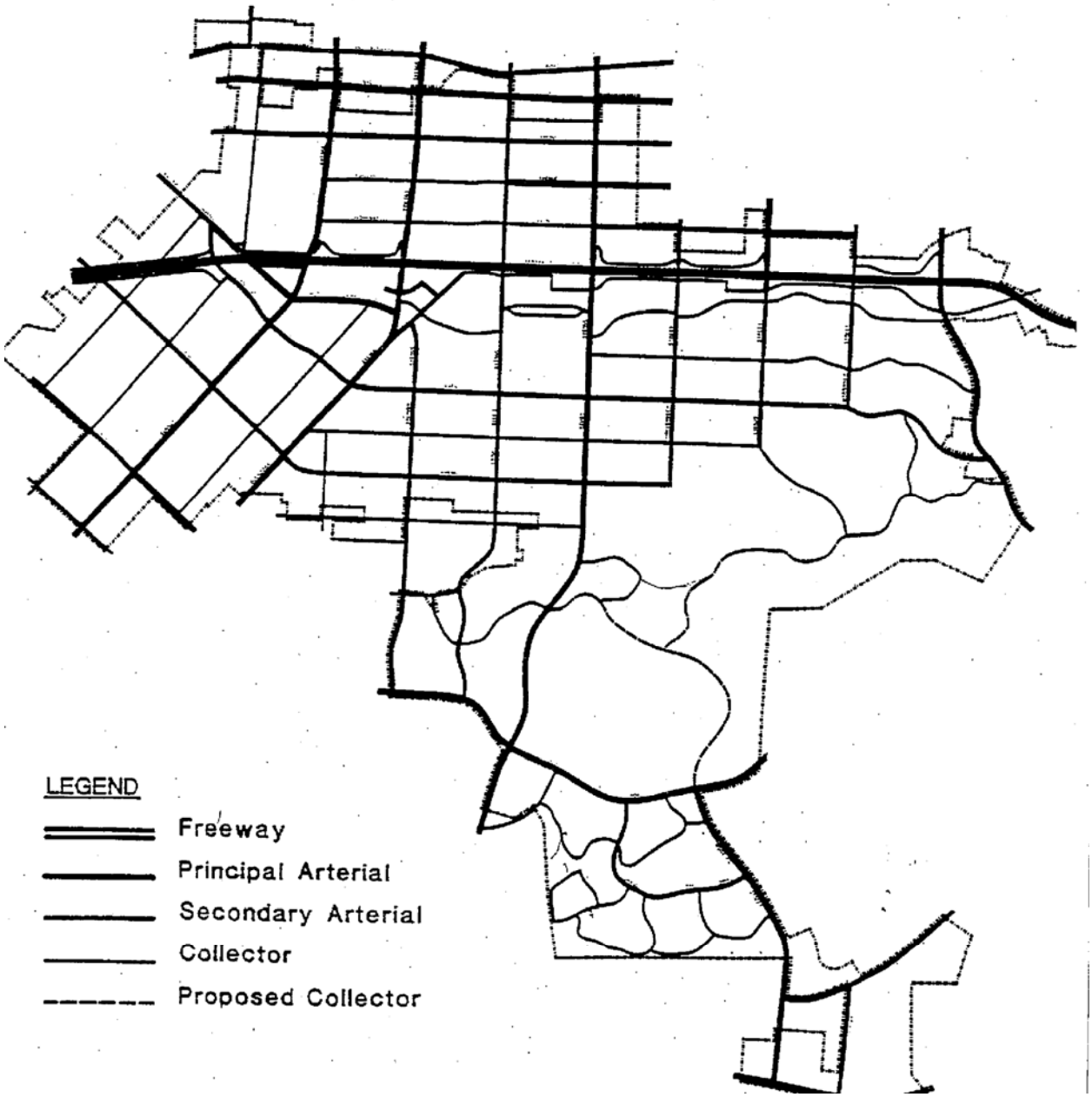


EXHIBIT 3-5: CITY OF LA PUENTE ROADWAY PLAN

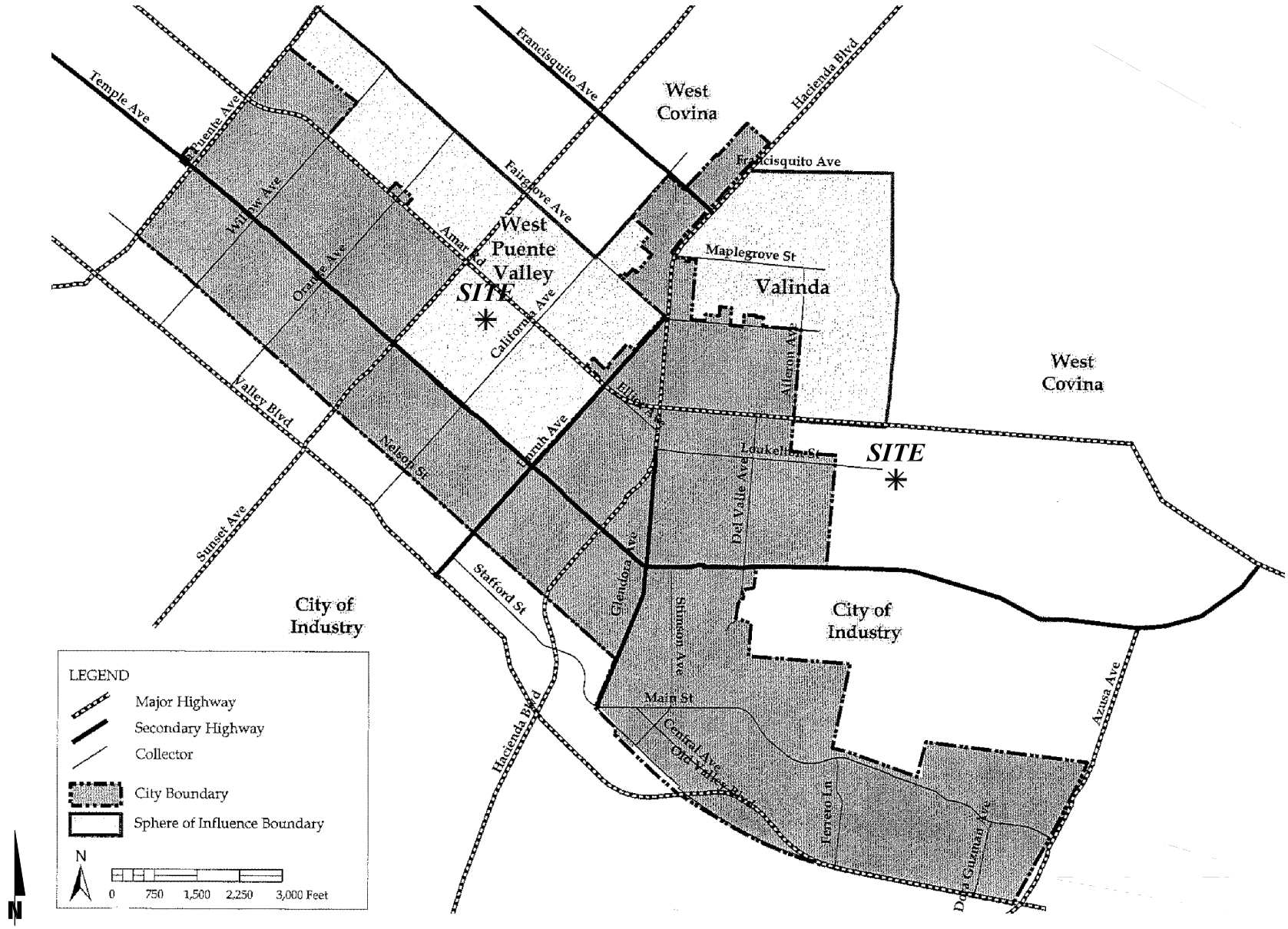
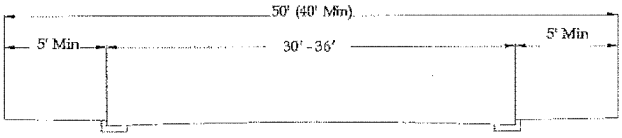
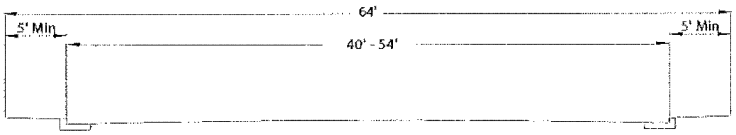


EXHIBIT 3-6: CITY OF LA PUENTE GENERAL PLAN ROADWAY CROSS SECTIONS

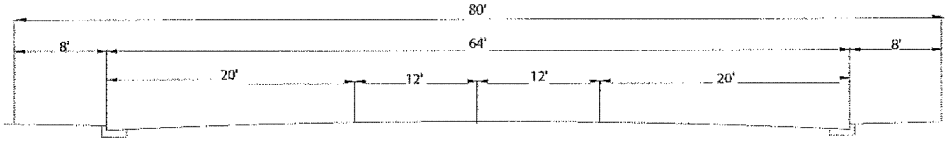
LOCAL STREET
(2 LANES, WITH ON-STREET PARKING)



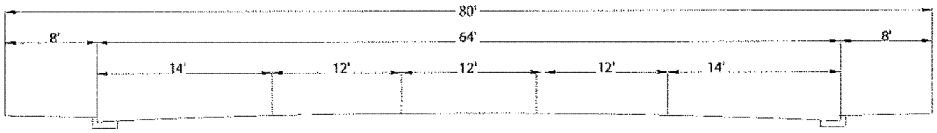
COLLECTOR
(2 LANES, WITH ON-STREET PARKING)



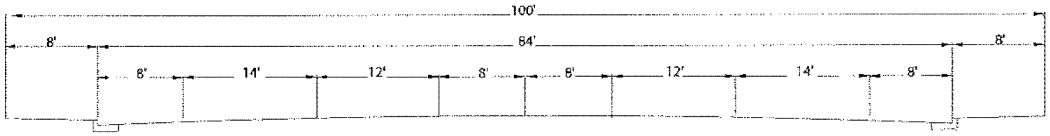
SECONDARY HIGHWAY
(4 LANES, UNDIVIDED WITH ON-STREET PARKING)



SECONDARY HIGHWAY
(4 LANES, DIVIDED WITH ON-STREET PARKING)



MAJOR HIGHWAY
(4 LANES, DIVIDED WITH ON-STREET PARKING)



MAJOR HIGHWAY
(6 LANES, DIVIDED WITH PEAK HOUR LANES)

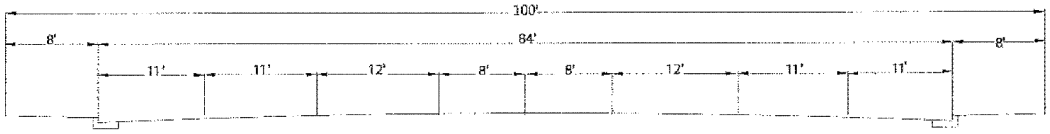


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EXHIBIT 3-7: LOS ANGELES COUNTY HIGHWAY PLAN POLICY MAP

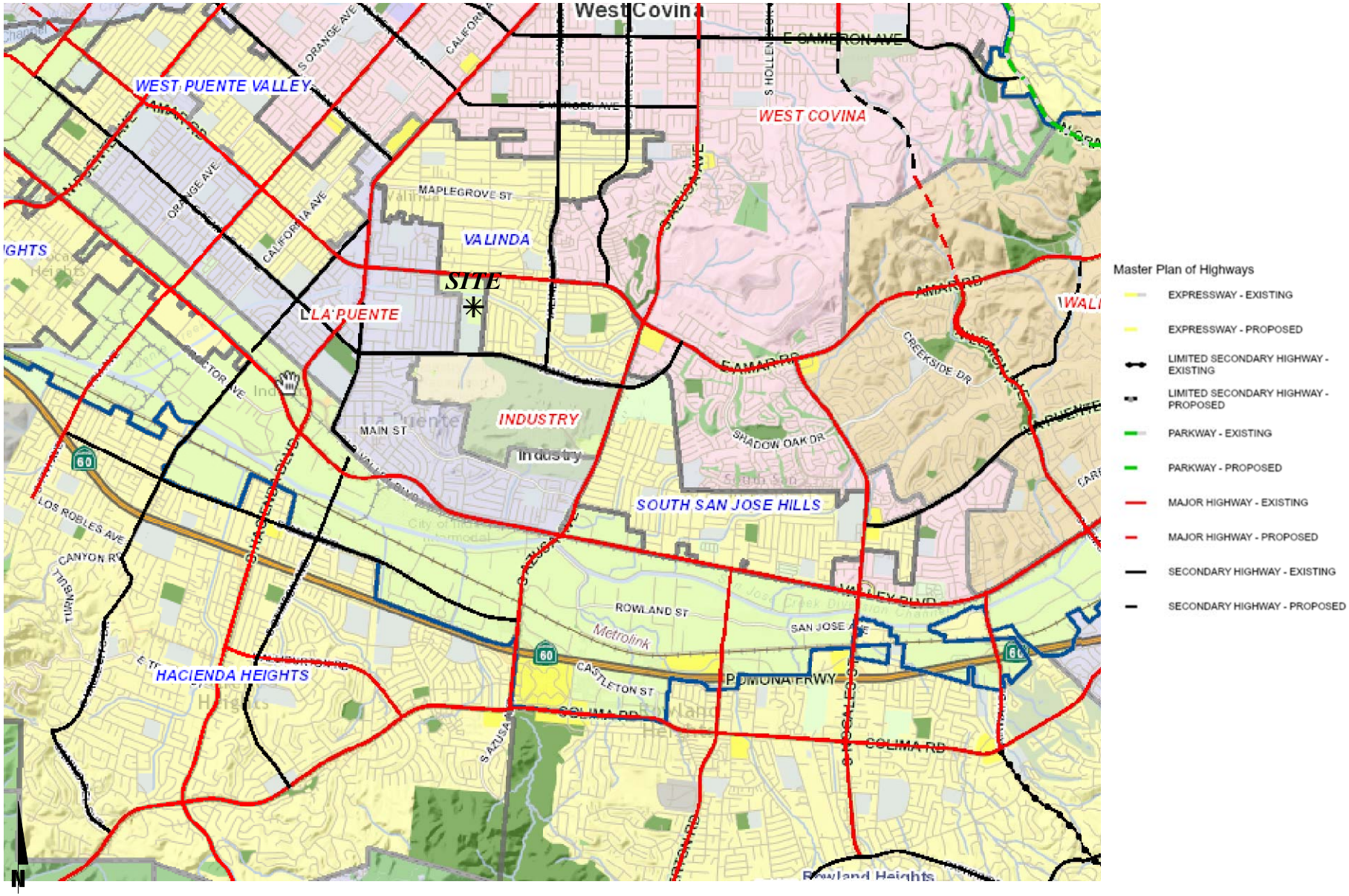
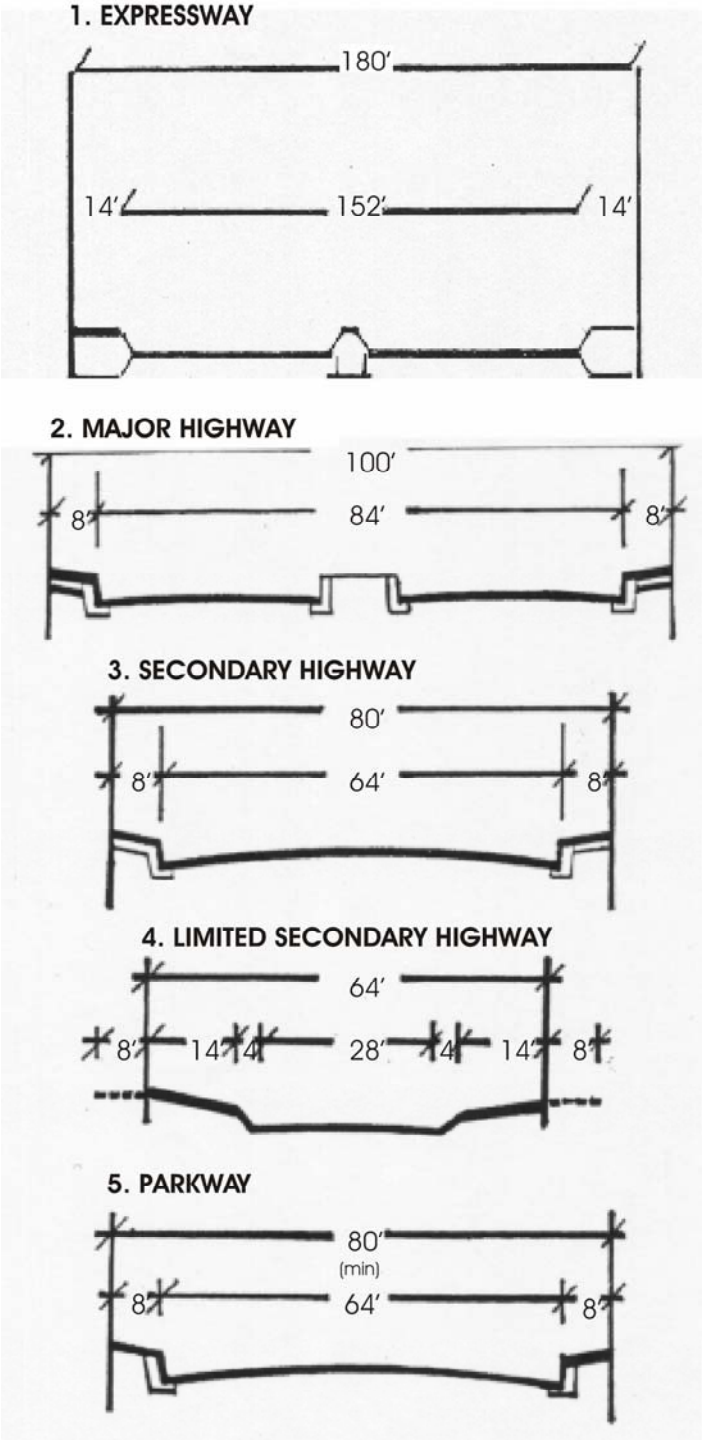


EXHIBIT 3-8: LOS ANGELES COUNTY GENERAL PLAN ROADWAY CROSS-SECTIONS



3.4 BICYCLE & PEDESTRIAN FACILITIES

Class II bikeways, also referred to as "bike lanes," are intended to delineate the right-of-way assigned to bicyclists and motorists, and to provide for more predictable movements of each. Bike lane signs and pavement marking help define the bikeway along Class II bike routes. A more important reason for bike lanes is to better accommodate bicyclists through corridors where insufficient room exists for safe bicycling on existing streets. There are no existing Class II bike lanes in the study area. As shown on Exhibit 3-9, There is an existing Class III (shared on-road lanes, not striped) along Temple Avenue outside of the City boundary. As shown on Exhibit 3-10, portions of Amar Road and Valinda Avenue within the study area are also classified bike routes. The Los Angeles County Bicycle Master Plan shown on Exhibit 3-11 also shows additional bikeways within the study area.

Due to the Project's proximity to the existing William Workman High School, located immediately to the south on Temple Avenue, additional field observations were made in the proximity of the school during the morning drop off period. In addition, pedestrian and bicycle counts have been obtained to be utilized for the HCM 2010 analysis.

Based on the field review, there appears to be no heavy periods of queuing/congestion along southbound Echelon Avenue and westbound Loukelton Street during the 10 to 15-minute period before the start of school. There is an existing access road leading to and from the high school located adjacent to the western terminus of Loukelton Street. The access road is also gated and only opened during the morning pick up and afternoon drop off periods. Southbound Echelon Avenue did not have any more than 8 passenger cars queued (approximately 200-feet of storage) at any given time during the morning drop-off period. The intersection of Echelon Avenue and Loukelton Street is also marked with school zone crosswalks to be utilized by students/parents.

3.5 EXISTING TRAFFIC COUNTS

Manual weekday AM and PM peak hour turning movement counts were conducted in February 2016 and May 2015, while area schools were in session. For the one location conducted in March 2015, the count data was increased to account for one year of growth (e.g., 0.5%) to reflect 2016 traffic conditions. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. The traffic counts collected include the vehicle classifications as shown below:

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

EXHIBIT 3-9: CITY OF INDUSTRY GENERAL PLAN PUBLIC TRANSIT PLAN

Foothill Transit Bus Service
Metro Line Bus Service
Metrolink Riverside Line, Amtrak Sunset Limited/Texas Eagle, and Union Pacific
Metrolink San Bernardino Line and Union Pacific

El Monte Metrolink Station
Industry Metrolink Station
Transit Center
Park and Ride

NOTES:
Bus routes extend beyond the limits shown.
Please see the Rail Service Plan for more information.

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URBAN CROSSROADS

EXHIBIT 3-10: CITY OF INDUSTRY GENERAL PLAN BICYCLE AND PEDESTRIAN PLAN

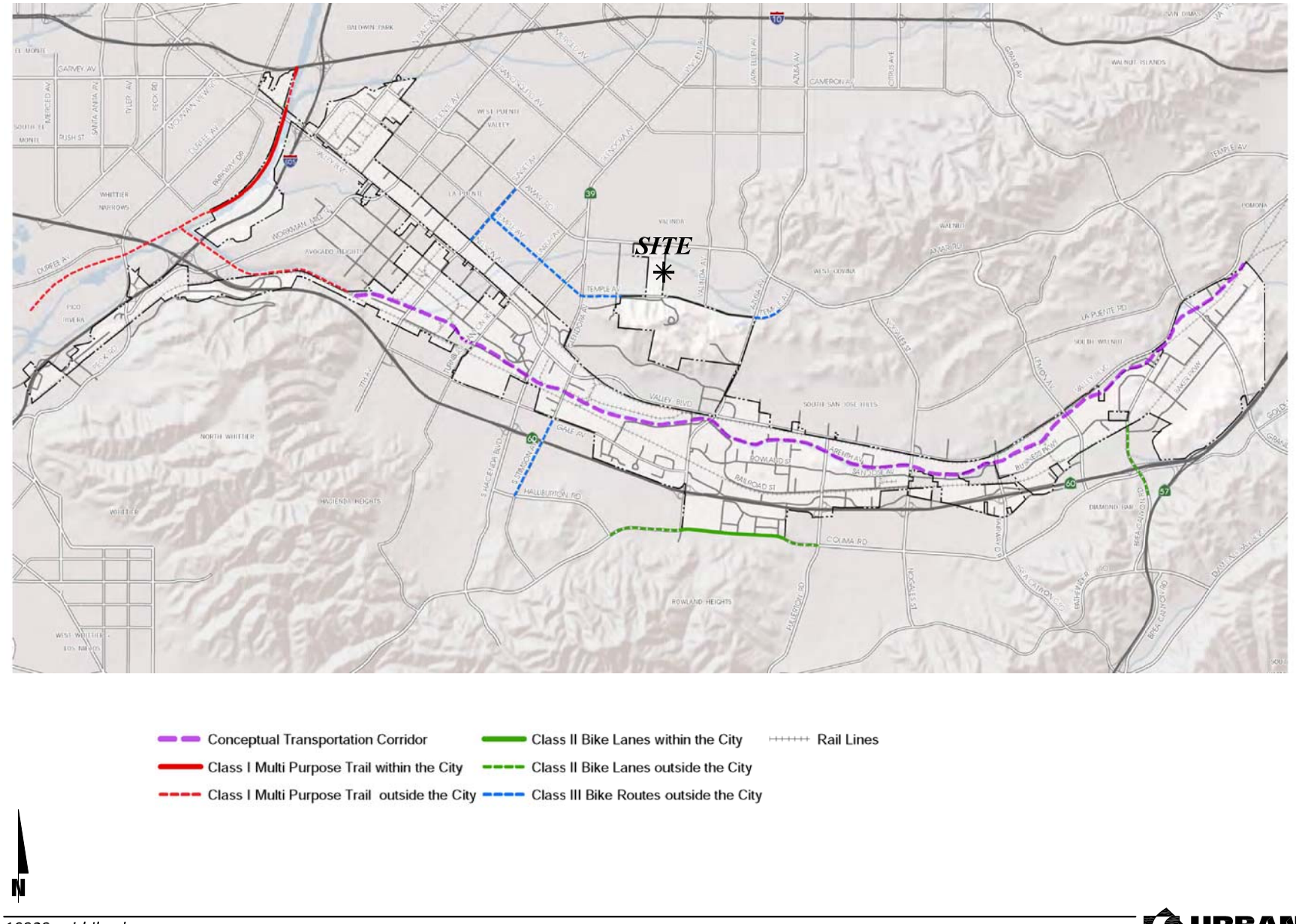
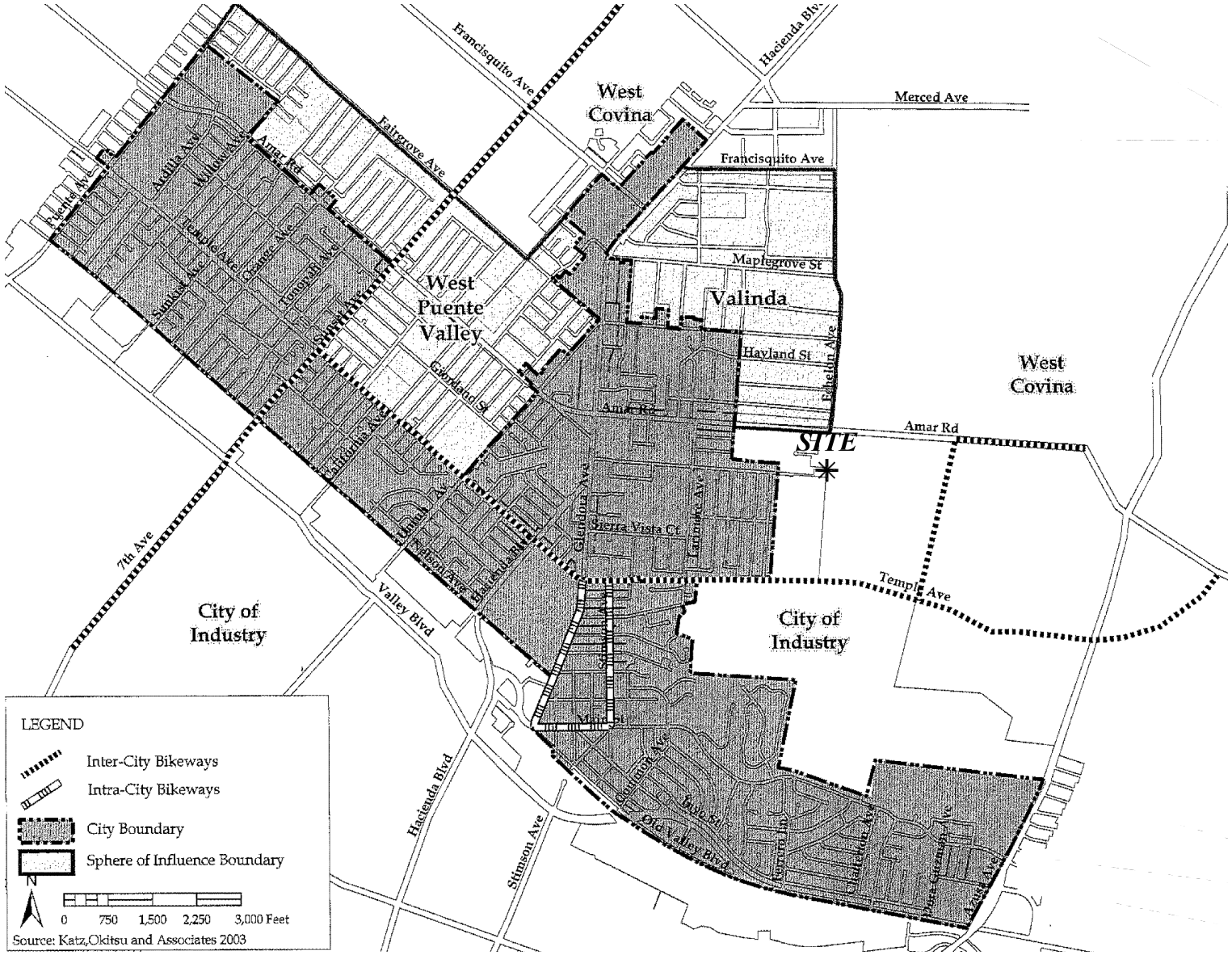


EXHIBIT 3-11: CITY OF LA PUENTE GENERAL PLAN MASTER PLAN OF BIKEWAYS



To represent the impact large trucks, buses and recreational vehicles have on traffic flow; all trucks were converted into PCEs. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is also much longer than for passenger cars, and varies depending on the type of vehicle and number of axles. For the purpose of this analysis, a PCE factor of 1.5 has been applied to 2-axle trucks, 2.0 for 3-axle trucks and 3.0 for 4+-axle trucks to estimate each turning movement. It should be noted that LA County and the Southern California Association of Governments (SCAG) do not have readily available PCE factor recommendations. As such, the PCE factors used are based on recommendations from San Bernardino Association of Governments (SANBAG) which is consistent with standard engineering practice throughout the Southern California region.

Existing ADT volumes on arterial highways throughout the study area are shown on Exhibit 3-12. Existing ADT volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 11.8019 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 8.47 percent. As such, the above equation utilizing a factor of 11.8019 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 8.47 percent (i.e., 1/0.0847 = 11.8019) and was assumed to sufficiently estimate ADT volumes for planning-level analyses.

Existing AM and PM peak hour intersection volumes are also shown on Exhibit 3-12. All of the intersections turning movement volumes illustrated on the exhibits and used in the traffic analysis are shown in terms of PCE.

3.6 EXISTING CONDITIONS INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1 which indicates that all of the existing study area intersections are currently operating at acceptable LOS during the peak hours, based on each applicable jurisdiction's LOS criteria, with the exception of the following intersections:

- Hacienda Bl. / Amar Rd. (#1) – LOS E PM peak hour only
- Hacienda Bl. / Valley Bl. (#3) – LOS E AM peak hour; LOS F PM peak hour

Consistent with Table 3-1, a summary of the peak hour intersection LOS for Existing conditions are shown on Exhibit 3-13. The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

EXHIBIT 3-12: LOS ANGELES COUNTY BICYCLE MASTER PLAN

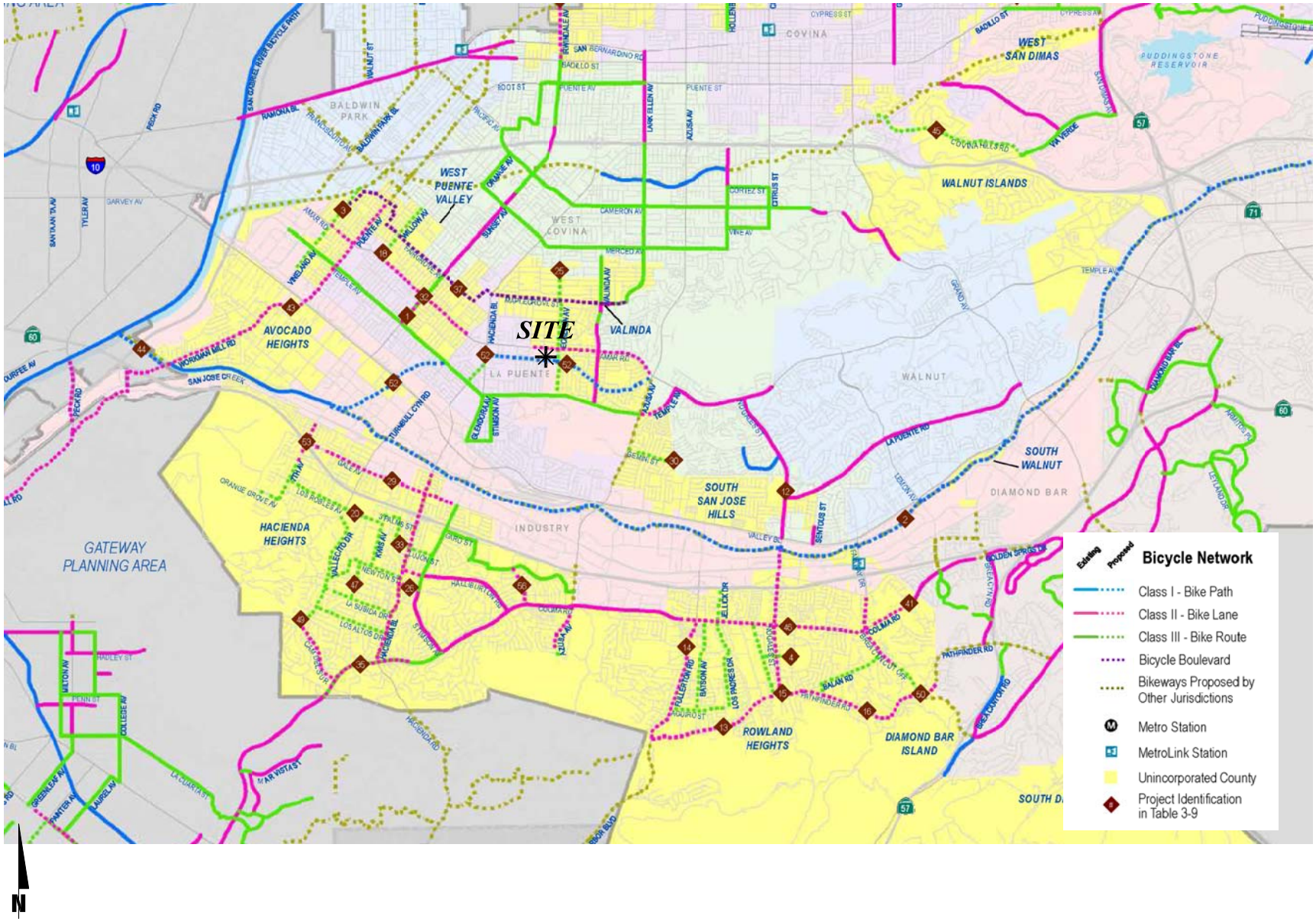


EXHIBIT 3-13: EXISTING (2016) TRAFFIC VOLUMES (IN PCE)

1 Hacienda Bl. & Amar Rd.	**2** Hacienda Bl. & Nelson Av.	**3** Hacienda Bl. & Valley Bl.	**4** New Echelon Av. & Loukelton St.	**5** Echelon Av. & Amar Rd.	**6** Echelon Av. & Loukelton St./ Glenhope Dr.	**7** Valinda Av. & Amar Rd.	**8** Azusa Av. & Amar Rd.	**9** Azusa Av. & Hurley St.
54(75)	49(36)	172(135)	Future Intersection	79(78)	197(26)	81(62)	115(171)	1707(1033)
851(813)	875(864)	941(910)		161(65)	78(107)	483(349)	928(685)	161(101)
160(268)	88(34)	332(226)		130(132)		194(263)	401(491)	
133(180)	91(40)	164(251)		59(89)	103(86)	358(256)	436(467)	239(309)
1239(556)	233(113)	644(933)		1241(717)	25(10)	1110(688)	1259(871)	29(24)
223(321)	18(11)	157(270)		61(39)		69(89)	163(169)	141(164)
73(103)	56(35)	315(522)		49(107)	165(44)	65(123)	180(207)	167(245)
424(712)	258(133)	1398(1197)		629(1010)	32(18)	542(817)	748(921)	25(11)
46(23)	150(138)	187(168)		84(58)		151(130)	269(242)	326(267)
128(84)	165(143)	262(275)		86(76)		118(102)	264(336)	136(251)
768(883)	1160(1571)	1374(1427)		173(65)		351(554)	696(1135)	1053(1856)
160(301)	119(107)	153(307)		45(23)		43(110)	68(78)	239(259)

N

Table 3-1

Intersection Analysis for Existing (2016) Conditions

#	Intersection		Traffic Control[3]	Intersection Approach Lanes[1]												ICU (v/c) or Delay (secs.)[2]		Level of Service	
				Northbound			Southbound			Eastbound			Westbound						
				L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Hacienda Bl. / Amar Rd.																		
		ICU:	TS	1	3	0	1	3	0	1	2	d	1	2	d	0.826	**0.937**	D	**E**
		HCM:	TS	1	3	0	1	3	0	1	2	d	1	2	d	33.5	43.9	C	D
2	Hacienda Bl. / Nelson Av.																		
		ICU:	TS	1	3	0	1	3	0	1	1	0	1	1	d	0.789	0.647	C	B
		HCM:	TS	1	3	0	1	3	0	1	1	0	1	1	d	26.5	19.8	C	B
3	Hacienda Bl. / Valley Bl.																		
		ICU:	TS	2	3	0	1	3	0	2	3	1>	2	3	0	**0.971**	**1.030**	**E**	**F**
		HCM:	TS	2	3	0	1	3	0	2	3	1>	2	3	0	47.3	**77.9**	D	**E**
4	New Echelon St. / Loukelton St.																		
		HCM:		Future Intersection															
5	Echelon Av. / Amar Rd.																		
		ICU:	TS	0	1	0	0	1	0	1	2	d	1	2	d	0.803	0.659	D	B
		HCM:	TS	0	1	0	0	1	0	1	2	d	1	2	d	17.2	18.2	B	B
6	Echelon Av. / Loukelton St.																		
		HCM:	AWS	0	0	0	0	1	0	0	1	0	0	1	0	14.1	8.0	B	A
7	Valinda Av. / Amar Rd.																		
		ICU:	TS	1	2	0	1	2	0	1	2	d	1	2	1	0.738	0.783	C	C
		HCM:	TS	1	2	0	1	2	0	1	2	d	1	2	1	25.1	37.2	C	D
8	Azusa Av. / Amar Rd.																		
		ICU:	TS	3	3	0	3	3	0	2	2	1>	2	3	1>	0.697	0.801	B	D
		HCM:	TS	3	3	0	3	3	0	2	2	1>	2	3	1>	32.4	34.0	C	C
9	Azusa Av. / Hurley St.																		
		ICU:	TS	1	3	1	1	3	0	1	1	1	1	1	1	0.894	**0.910**	D	**E**
		HCM:	TS	1	3	1	1	3	0	1	1	1	1	1	1	30.2	39.8	C	D

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; > = Right-Turn Overlap Phasing

2 ICU reported as a volume-to-capacity ratio and HCM delay reported in seconds. ICU reported from Traffix (Version 8.0) and HCM from Synchro (Version 9.1). Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. ICU and HCM report for all signalized intersections; however, ICU utilized for purposes of determining significant impacts.

3 TS = Traffic Signal; AWS = All Way Stop

3.7 EXISTING CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing (2016) traffic conditions are based on existing peak hour intersection turning volumes. For Existing traffic conditions, the intersection of Echelon Avenue and Loukelton Street does not currently warrant a traffic signal (See Appendix 3.3).

4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network.

It is our understanding that the Project is proposed to consist of 246,373 sf of business park spread over 7 buildings. Each individual building is between 27,417 sf and 43,166 sf in size with 2-5 dock doors, indicating low truck generating users (in comparison to heavy warehouse or other industrial land uses). For the purposes of this analysis, it is assumed that the Project will be developed in a single phase with an Opening Year of 2018.

The Project is proposed to access Loukelton Street via New Echelon Street. New Echelon Street is proposed to be a full access driveway providing access to the site. Regional access to the Project site will be provided by the I-10 Freeway to the north and the SR-60 Freeway to the south via Hacienda Boulevard/Glendora Avenue and Azusa Avenue.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic that is attracted and produced by a development, and is based upon the specific land uses planned for a given project. Trip generation rates and summary for the Project are shown in Table 4-1 based on PCE and Table 4-2 based on actual vehicles. Trip generation for trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks.

Based on the proposed uses of the proposed Project (business park), the trip generation has been based on empirical data collected by Urban Crossroads, Inc. for other existing uses with similar operational characteristics to that proposed by the Project. Consistent with guidelines outlined in Chapter 4 *Conducting a Trip Generation Study* of the Institute of Transportation Engineers (ITE) Trip Generation Handbook, Urban Crossroads, Inc. collected local data in an effort to establish a suitable trip generation rate for the business park land use. [5] 4 sample sites located in the cities of Pomona, Ontario, and Chino were evaluated and have similarities to the proposed Project. A more detailed explanation of the methodology, development, and decision to utilize the local trip generation rates for the business park land use can be found in Appendix 4.1 of this report.

Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. As shown on Table 4-1, PCE factors were also applied to the proposed Project consistent with the factors applied to the existing site trip generation. The Project is anticipated to generate a net total of approximately 701 net PCE trip-ends per day with 70 net PCE AM peak hour trips and 64 net PCE PM peak hour trips. Trip generation for the Project is provided on Table 4-2 in actual vehicles for informational purposes only.

Table 4-1

Project Trip Generation Summary (in PCE)

Land Use	Units[2]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Project Trip Generation Rates (PCE)[1]									
Business Park	TSF	--[3]	0.187	0.045	0.232	0.045	0.165	0.210	2.336
Passenger Cars			0.151	0.036	0.188	0.036	0.134	0.170	1.892
2-Axle Trucks			0.028	0.007	0.035	0.007	0.025	0.032	0.354
3-Axle Trucks			0.003	0.001	0.004	0.001	0.003	0.004	0.042
4-Axle+ Trucks			0.045	0.011	0.056	0.011	0.040	0.050	0.561

Land Use	Quantity	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Passenger Car Equivalent (PCE) Trip Generation Summary									
Buildings A - G	246.373	TSF							
Passenger Cars:			37	9	46	9	33	42	466
Truck Trips:									
2-axle:			7	2	9	2	6	8	87
3-axle:			1	0	1	0	1	1	10
4+-axle:			11	3	14	3	10	13	138
- Net Truck Trips (PCE)[4]			*19*	*5*	*24*	*5*	*17*	*22*	*235*
TOTAL NET TRIPS (PCE)[5]			***56***	***14***	***70***	***14***	***50***	***64***	***701***

[1] Trip Generation Source: Empirical data collected in July 2013, based on an average of data collected at four sample sites.

[2] TSF = thousand square feet

[3] Vehicle Mix Source: Empirical data collected in July 2013, based on an average of data collected at four sample sites.
81.0% passenger cars, 10.1% 2-Axle trucks, 0.9% 3-Axle trucks, 8.0% 4-Axle trucks

[4] PCE rates are per SANBAG as PCE factors are not readily available in the LA County CMP (1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks).

[5] TOTAL NET TRIPS (PCE) = Passenger Cars + Net Truck Trips (PCE).

Table 4-2

Project Trip Generation Summary (in Actual Vehicles)

Land Use	Units[2]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Project Trip Generation Rates (Actual Vehicles)[1]									
Business Park	TSF	--[3]	0.187	0.045	0.232	0.045	0.165	0.210	2.336
Passenger Cars			0.151	0.036	0.188	0.036	0.134	0.170	1.892
2-Axle Trucks			0.019	0.005	0.023	0.005	0.017	0.021	0.236
3-Axle Trucks			0.002	0.000	0.002	0.000	0.001	0.002	0.021
4-Axle+ Trucks			0.015	0.004	0.019	0.004	0.013	0.017	0.187

Land Use	Quantity	Units[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles Trip Generation Summary									
Buildings A - G	246.373	TSF							
Passenger Cars:			37	9	46	9	33	42	466
Truck Trips:									
2-axle:			5	1	6	1	4	5	58
3-axle:			0	0	1	0	0	0	5
4+-axle:			4	1	5	1	3	4	46
- Net Truck Trips (Actual Trucks)			*9*	*2*	*11*	*2*	*8*	*10*	*109*
TOTAL NET TRIPS (Actual Vehicles)[4]			***46***	***11***	***57***	***11***	***41***	***52***	***576***

[1] Trip Generation Source: Empirical data collected in July 2013, based on an average of data collected at four sample sites.

[2] TSF = thousand square feet

[3] Vehicle Mix Source: Empirical data collected in July 2013, based on an average of data collected at four sample sites.
81.0% passenger cars, 10.1% 2-Axle trucks, 0.9% 3-Axle trucks, 8.0% 4-Axle trucks

[4] TOTAL NET TRIPS (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

4.2 PROJECT TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land use and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site. The existing roadway network and location of regional destinations such as the Port of Long Beach and the Port of Los Angeles have been reviewed to develop the Project trip distribution pattern.

Exhibit 4-1 illustrates the truck trip distribution patterns for the Project. Exhibit 4-2 illustrates the passenger car trip distribution patterns for the Project. Project passenger car distributions have been based upon existing travel patterns.

4.3 MODAL SPLIT

The traffic reducing potential of public transit, walking or bicycling has not been considered in this TIA, because they are likely to be minimal.

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADT, AM and PM peak hour traffic volumes are shown on Exhibit 4-3.

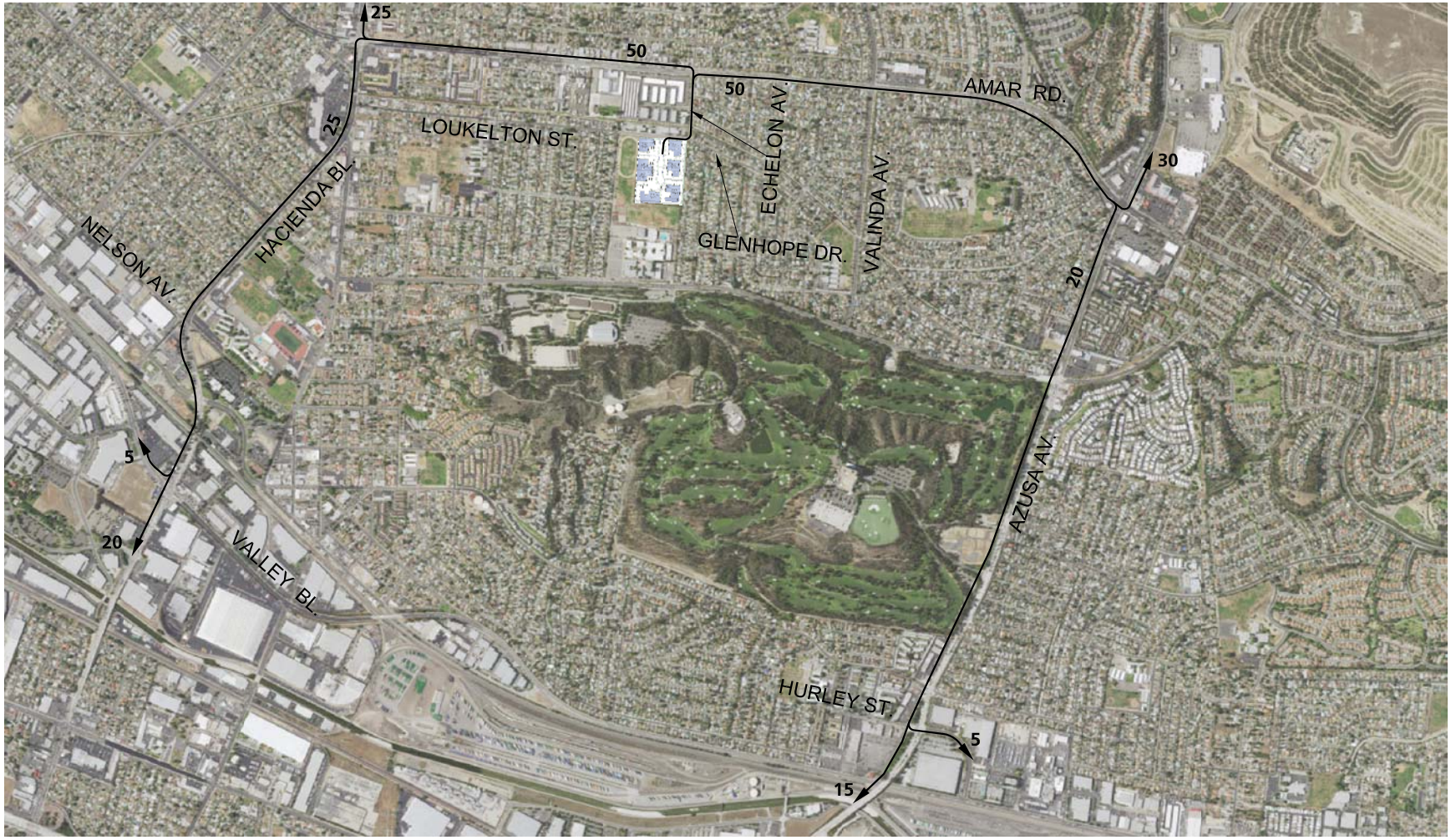
4.5 BACKGROUND TRAFFIC

4.5.1 OPENING YEAR CUMULATIVE CONDITIONS

The Opening Year Cumulative conditions analysis determines the Project's contribution to near-term cumulative traffic impacts based on a comparison of the "With Project" traffic scenario to the "Without Project" traffic scenario. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2016) conditions of 1.0% (0.5% per year, compounded over 2 years) is included for Opening Year Cumulative (2018) traffic conditions, as well as traffic generated by cumulative projects that could affect the study area intersections.

The generalized growth factors provided in the 2010 LA County CMP [1] indicates a growth factor of 1.046 for ten years (2010 to 2020) or a compounded annual growth of 0.45% per year for the RSA 26 in which the Project is located. As such, the analysis is consistent with the CMP guidelines and has utilized an annual growth rate of 0.5% per year for a total of 1.0% for Opening Year Cumulative (2018) traffic conditions.

EXHIBIT 4-1: PROJECT (TRUCK) TRIP DISTRIBUTION

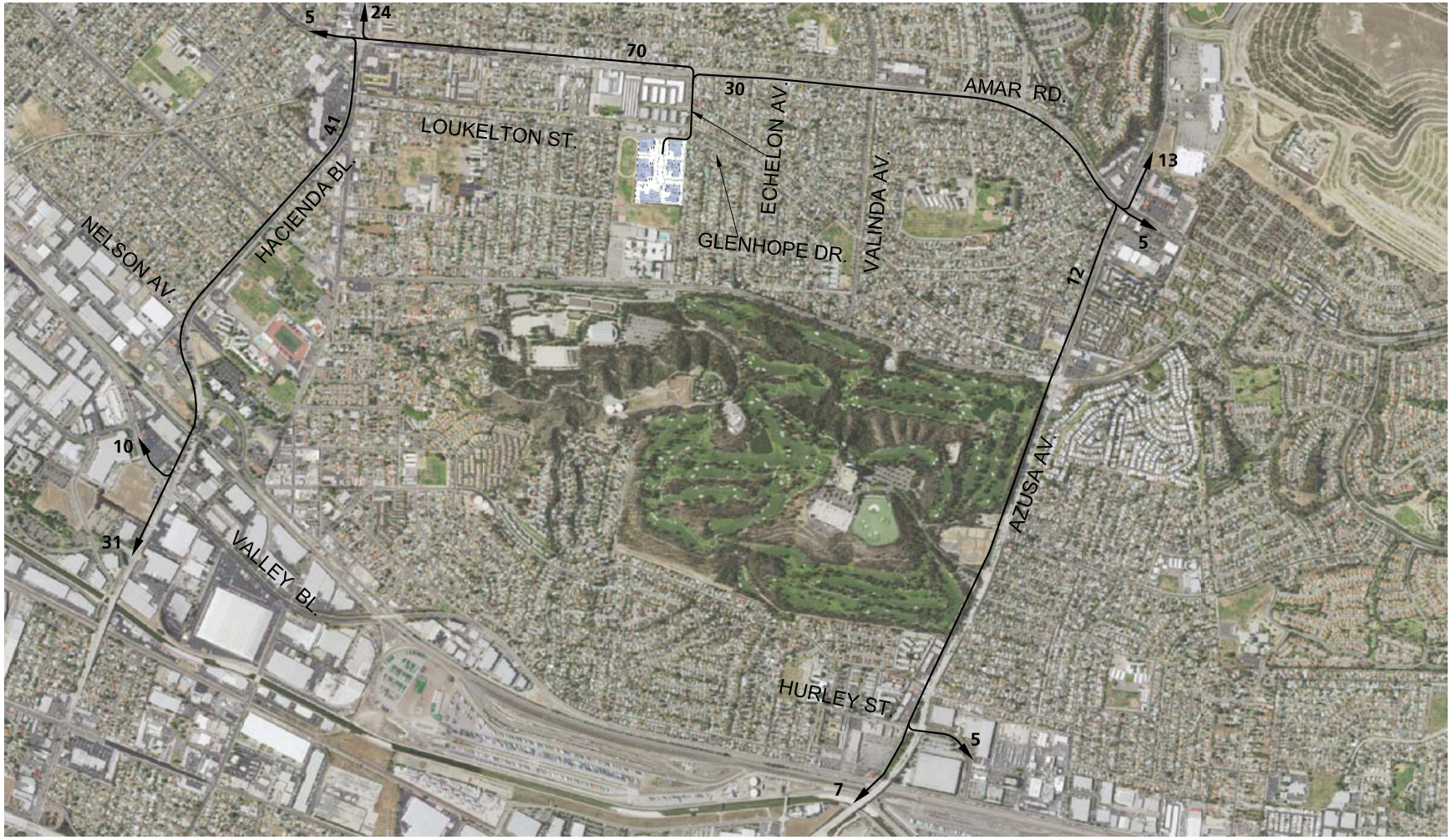


LEGEND:

10 = PERCENT TO/FROM PROJECT

N

EXHIBIT 4-2: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION

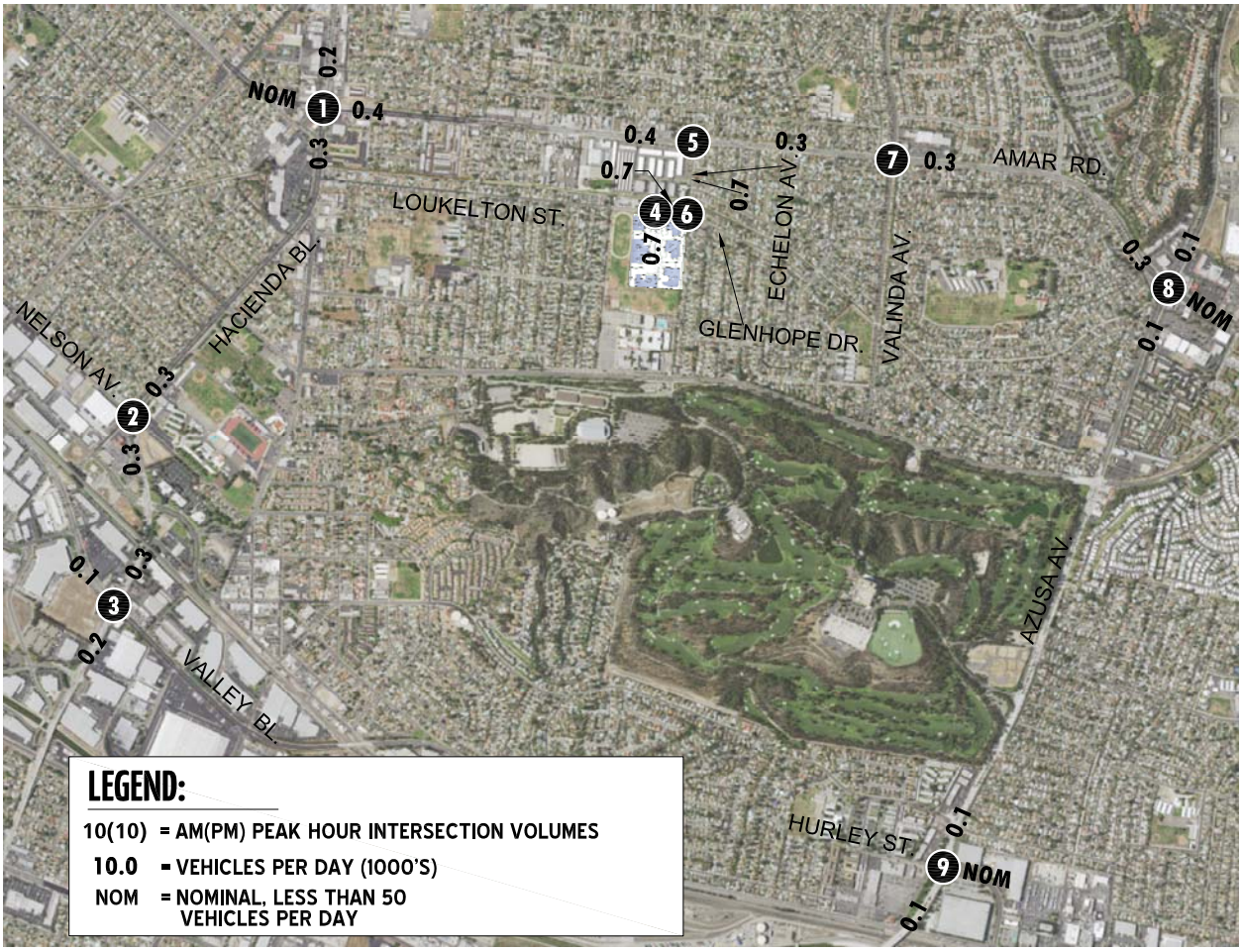


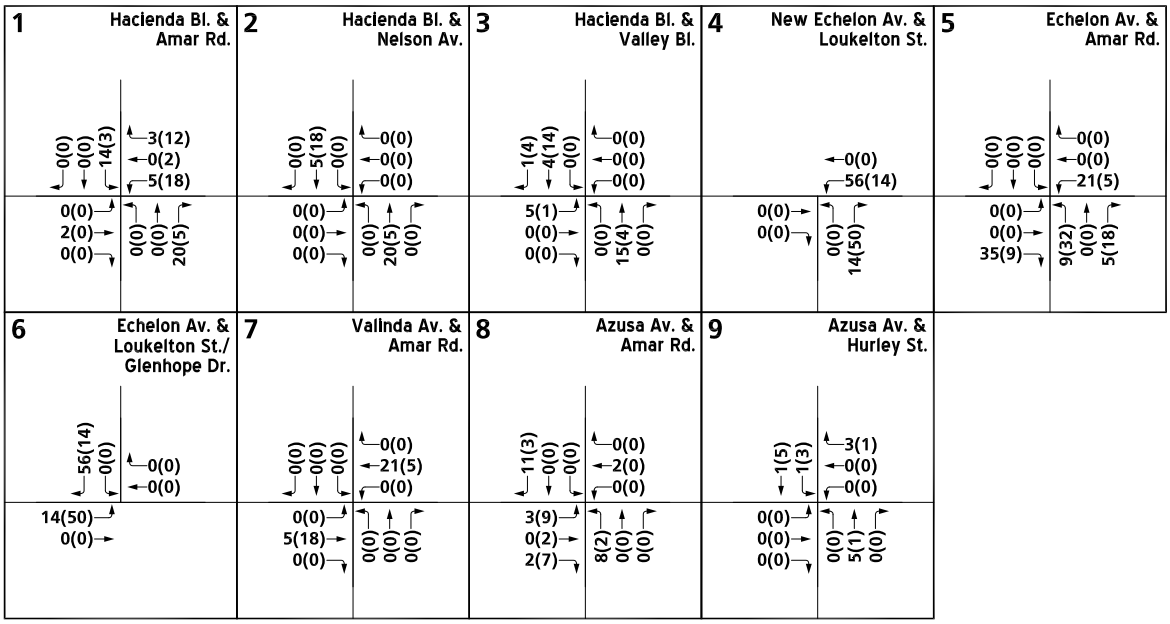
LEGEND:

10 = PERCENT TO/FROM PROJECT

N

EXHIBIT 4-3: PROJECT ONLY TRAFFIC VOLUMES (IN PCE)





4.5.2 HORIZON YEAR CONDITIONS

Horizon Year (2040) Without Project traffic conditions include an ambient traffic growth factor of 12.7% (0.5% annual growth compounded over 24 years) based on the near-term growth factors provided in LA County CMP for RSA 26, and in excess of the longer range growth projections. A growth factor of 1.106 was estimated for 25 years (from 2010 to 2035) in LA County CMP, which is equivalent to 0.4% per year growth. Although the Horizon Year growth rate is different than the Opening Year Cumulative growth rate due to the fact that the LA County CMP provides different growth factors for year 2020 which was used to interpolate the growth factor for the Opening Year Cumulative (2018) and for the Year 2040 which was used to represent the Horizon Year, the same (more conservative) growth rate has been applied to both analysis scenarios. In addition, traffic generated by cumulative projects that could affect the study intersections was added on top of the ambient growth.

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

California Environmental Quality Act (CEQA) guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Industry. Exhibit 4-4 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses and associated trip generation are shown on Table 4-3.

If applicable (i.e. if the cumulative projects are anticipated to contribute trips to study area intersections), the traffic generated by individual cumulative projects was manually added to the Opening Year Cumulative (2018) and Horizon Year (2040) forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-3 are reflected as part of the background traffic. Traffic from other cumulative developments farther away from the study area are not anticipated to add significant traffic and are accounted for by the ambient growth rate applied to forecast the background traffic.

Cumulative development only ADT, AM and PM peak hour traffic volumes are shown on Exhibit 4-5.

EXHIBIT 4-4: CUMULATIVE DEVELOPMENT LOCATION MAP

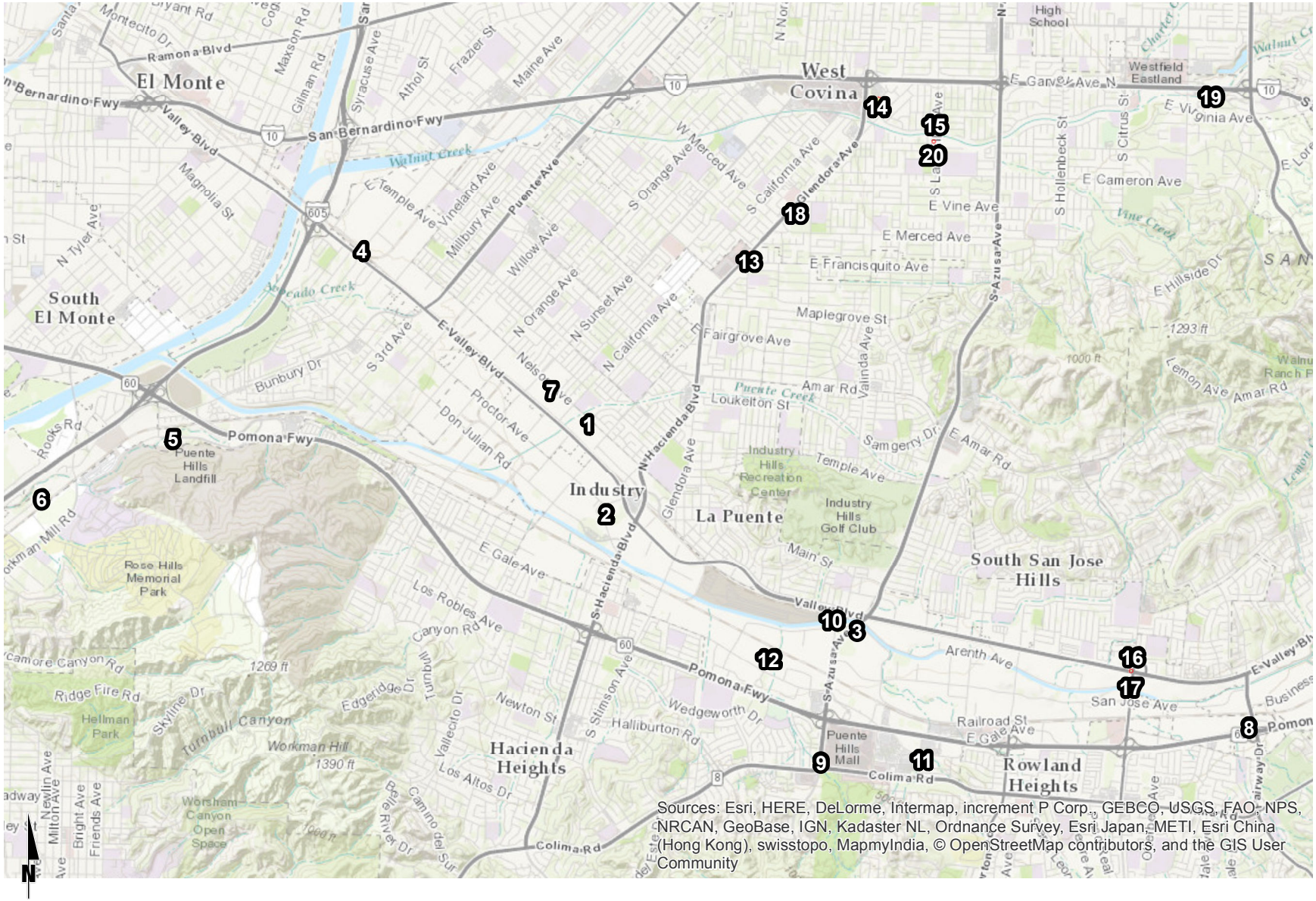


EXHIBIT 4-5: CUMULATIVE DEVELOPMENT ONLY TRAFFIC VOLUMES (IN PCE)

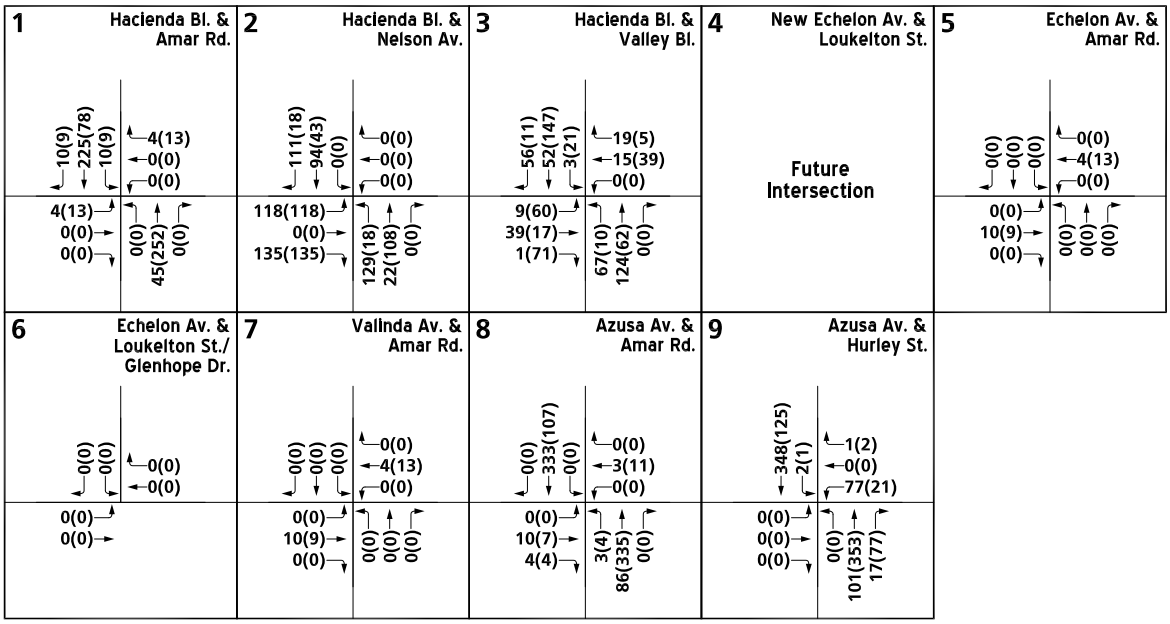


Table 4-3

Cumulative Development Trip Generation Summary (in PCE)

ID	Location	Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
					In	Out	Total	In	Out	Total	
1	15000 Nelson	General Light Industrial	125.344	TSF	129	18	147	18	135	153	1,109
2	489 & 499 Parriott Pl.	General Light Industrial	130.170	TSF	134	18	152	19	141	160	1,152
3	SEC Azusa and Chestnut	Industrial Park	614.597	TSF	763	167	930	203	762	965	7,757
4	18421 Railroad Av.	General Light Industrial	8.850	TSF	10	1	11	1	10	11	78
5	12851 Crossroads Pwy. S.	General Office	77.250	TSF	106	14	120	20	96	116	852
6	3718 Capitol Av.	Warehouse	36.666	TSF	12	3	15	3	12	15	166
7	14700 Nelson	General Light Industrial	232.450	TSF	240	32	272	34	252	286	2,055
8	19782 Walnut Dr. N.	Fast-food w/ Drive-thru	2.662	TSF	62	59	121	45	42	87	1,321
9	1552 Azusa Av.	Retail	5.160	TSF	3	2	5	9	10	19	220
10	17225 Arenth Av.[2]	Maintenance	6.760	TSF	NOM	NOM	NOM	NOM	NOM	NOM	NOM
11	Castleton	Fast-food w/ Drive-thru	2.492	TSF	58	55	113	42	39	81	1,236
12	16801 Gale Av.	Warehouse	39.150	TSF	12	3	15	4	13	17	178
13	NEC Hacienda and Francisquito	Shopping Center	18.000	TSF	11	7	18	32	35	67	769
14	301 S. Glendora Av.	Retail	20.000	TSF	12	7	19	36	38	74	854
		Apartments	450	DU	46	184	230	181	98	279	2,993
15	424 S. Lark Ellen Av.	Single Family Residential	45	DU	9	25	34	28	17	45	428
16	4101 & 4111 S. Nogales St.	Retail	5.160	TSF	3	2	5	9	10	19	220
		Condo/Townhomes	33	DU	3	14	17	21	12	33	219
17	4141 Nogales St.	Medical Office/Retail	23.588	TSF	19	16	35	27	26	53	694
18	1030 S. Glendora Av.	Retail	2.200	TSF	1	1	2	4	3	7	85
19	3228, 3238, 3244 Holt Av.	Condo/Townhomes	48	DU	4	18	22	17	8	0	279
20	520 S. Lark Ellen Av.	Single Family Residential	45	DU	9	25	34	28	17	45	428
21	1773 W. San Bernardino Rd.	Condo/Townhomes	30	DU	2	11	13	10	5	15	174
				TOTAL NET TRIPS (PCE)	***1,648***	***682***	***2,330***	***791***	***1,781***	***2,547***	***23,267***

[1] TSF = thousand square feet; DU = Dwelling unit

[2] NOM = Nominal

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5 E+P TRAFFIC CONDITIONS

In an effort to satisfy the CEQA Guidelines section 15125(a), an analysis of existing traffic volumes plus traffic generated by the proposed Project (E+P) has been included in this analysis. This section discusses the traffic forecasts for E+P conditions and the resulting intersection operations and traffic signal warrants.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access, which are also assumed to be in place for E+P conditions. In other words, no other off-site improvements are assumed beyond those that currently exist with the exception of the intersections and roadways that would be improved by the Project for access.

5.2 E+P TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic. Exhibit 5-1 shows the ADT, AM and PM peak hour traffic volumes which can be expected for E+P traffic conditions.

5.3 INTERSECTION OPERATIONS ANALYSIS

E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA. The intersection analysis results are summarized in Table 5-1, there are no additional intersections anticipated to operate at an unacceptable LOS, in addition to those currently operating at a deficient LOS under Existing (2016) traffic conditions. In addition, the addition of Project traffic is anticipated to change the volume-to-capacity (v/c) by less than 2 percent (0.02) at each of the existing deficient study area intersections. As such, the addition of Project traffic does not result in a significant impact at the study area intersections based on the City of Industry's LOS threshold of significance.

Consistent with Table 5-1, a summary of the peak hour intersection LOS for E+P conditions are shown on Exhibit 5-2. The intersection operations analysis worksheets for E+P traffic conditions are included in Appendix 5.1 of this TIA.

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

There are no study area intersections anticipated to meet either the peak hour or ADT volume based traffic signal warrants for E+P traffic conditions (see Appendix 5.2).

EXHIBIT 5-1: E+P TRAFFIC VOLUMES (IN PCE)

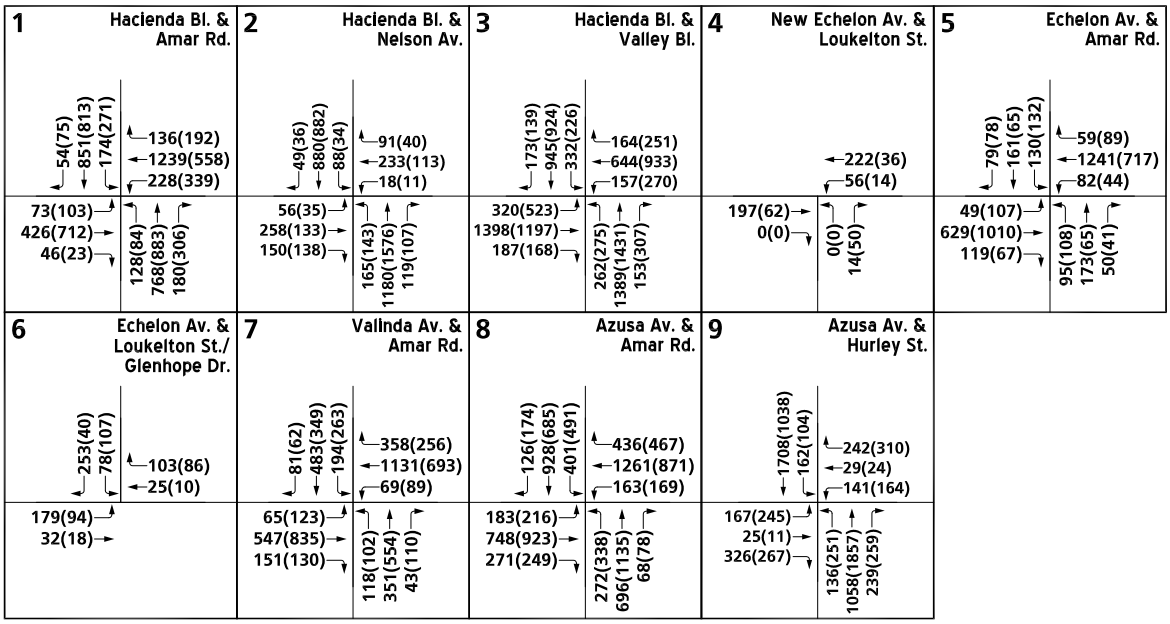

EXHIBIT 5-2: E+P SUMMARY OF LOS

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URBAN CROSSROADS

Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[2]	Existing (2016) ICU (v/c) or Delay (secs.)[1] AM	Existing (2016) ICU (v/c) or Delay (secs.)[1] PM	Existing (2016) Level of Service AM	Existing (2016) Level of Service PM	E+P ICU (v/c) or Delay (secs.)[1] AM	E+P ICU (v/c) or Delay (secs.)[1] PM	E+P Level of Service AM	E+P Level of Service PM	Change in v/c AM	Change in v/c PM	Significant Impact?[3]
1	Hacienda Bl. / Amar Rd.												
	ICU:	TS	0.826	**0.937**	D	**E**	0.839	**0.951**	D	**E**	0.013	0.014	No
	HCM:	TS	33.5	43.9	C	D	33.7	45.1	C	D			
2	Hacienda Bl. / Nelson Av.												
	ICU:	TS	0.789	0.647	C	B	0.793	0.648	C	B	0.004	0.001	N/A
	HCM:	TS	26.5	19.8	C	B	26.6	19.8	C	B			
3	Hacienda Bl. / Valley Bl.												
	ICU:	TS	**0.971**	**1.030**	**E**	**F**	**0.975**	**1.032**	**E**	**F**	0.004	0.002	No
	HCM:	TS	47.3	**77.9**	D	**E**	48.0	**78.1**	D	**E**			
4	New Echelon St. / Loukelton St.												
	HCM:	**CSS**	Future Intersection				9.4	8.8	A	A			N/A
5	Echelon Av. / Amar Rd.												
	ICU:	TS	0.803	0.659	D	B	0.809	0.682	D	B	0.006	0.023	N/A
	HCM:	TS	17.2	18.2	B	B	17.4	18.3	B	B			
6	Echelon Av. / Loukelton St.												
	HCM:	AWS	14.1	8.0	B	A	18.3	8.3	C	A			N/A
7	Valinda Av. / Amar Rd.												
	ICU:	TS	0.738	0.783	C	C	0.744	0.788	C	C	0.006	0.005	N/A
	HCM:	TS	25.1	37.2	C	D	25.1	37.6	C	D			
8	Azusa Av. / Amar Rd.												
	ICU:	TS	0.697	0.801	B	D	0.702	0.802	C	D	0.005	0.001	N/A
	HCM:	TS	32.4	34.0	C	C	33.3	34.7	C	C			
9	Azusa Av. / Hurley St.												
	ICU:	TS	0.894	**0.910**	D	**E**	0.896	**0.913**	D	**E**	0.002	0.003	No
	HCM:	TS	30.2	39.8	C	D	30.4	40.0	C	D			

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 ICU reported as a volume-to-capacity ratio and HCM delay reported in seconds. ICU reported from Traffix (Version 8.0) and HCM from Synchro (Version 9.1). Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. ICU and HCM report for all signalized intersections; however, ICU utilized for purposes of determining significant impacts.

2 TS = Traffic Signal; AWS = All Way Stop; CSS = Cross-street Stop; **CSS** = Improvement

3 To determine whether the addition of Project traffic at a study intersection results in a significant impact, the following thresholds of significance consistent with the Los Angeles County CMP will be utilized:

- A significant impact occurs at a signalized intersection if the addition of Project trips causes the peak hour LOS to fall from an acceptable LOS to an unacceptable LOS and the proposed Project increases the demand (v/c) by 0.02 or more.
- A significant impact occurs at a signalized intersection if the addition of Project trips to an intersection that is currently operating at an acceptable LOS (i.e., LOS E or F) causes the v/c to increase by 0.02 or more.
- A significant impact occur at an unsignalized intersection if the addition of Project rips causes the peak hour LOS to fall from an acceptable LOS to an unacceptable LOS.
- N/A = Not Applicable

5.5 EXISTING PLUS PROJECT IMPACTS

Based on the applicable jurisdiction's significance criteria as discussed in Section 2.5 *Thresholds of Significance*, there were no study area intersections that were found to be significantly impacted by the Project for E+P traffic conditions.

Hacienda Bl. / Amar Rd. (#1) – LOS E PM peak hour only for both Existing (2016) and E+P traffic conditions. The addition of Project traffic to increase the v/c by less than 0.02. As such, the impact is less than significant.

Hacienda Bl. / Valley Bl. (#3) – LOS E AM peak hour and LOS F in the PM peak hour for both Existing (2016) and E+P traffic conditions. The addition of Project traffic to increase the v/c by less than 0.02. As such, the impact is less than significant.

Azusa Av. / Hurley St. (#9) – LOS E PM peak hour only for both Existing (2016) and E+P traffic conditions. The addition of Project traffic to increase the v/c by less than 0.02. As such, the impact is less than significant.

As such, no improvements have been recommended.

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6 OPENING YEAR CUMULATIVE (2018) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative Without and With Project traffic forecasts, and the resulting intersection operations and traffic signal warrants.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access, which are anticipated to be in place for Opening Year Cumulative (2018) traffic conditions.

6.2 OPENING YEAR CUMULATIVE WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes, an ambient growth factor of 1.0%, and traffic from pending and approved but not yet constructed known development projects in the area. The weekday ADT, AM and PM peak hour volumes which can be expected for Opening Year Cumulative Without Project traffic conditions are shown on Exhibit 6-1.

6.3 OPENING YEAR CUMULATIVE WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes, an ambient growth factor of 1.0%, traffic from pending and approved but not yet constructed known development projects in the area, and the addition of Project traffic. The weekday ADT, AM and PM peak hour volumes which can be expected for Opening Year Cumulative With Project traffic conditions are shown on Exhibit 6-2.

6.4 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative Without Project conditions, with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown in Table 6-1, the following additional study area intersection is anticipated to operate at an unacceptable LOS, in addition to those previously identified under Existing (2016) traffic conditions under Opening Year Cumulative (2018) Without Project traffic conditions:

- Azusa Avenue / Hurley St. (#9) – LOS E AM and PM peak hours

The addition of Project traffic is anticipated to change the v/c by less than 2 percent (0.02) at each of the 3 deficient study area intersections. As such, the addition of Project traffic does not result in a significant cumulative impact at the study area intersections based on the City of Industry's threshold of significance.

EXHIBIT 6-1: OPENING YEAR CUMULATIVE (2018) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)

1 Hacienda Bl. & Amar Rd.

65(84)	1084(899)	172(280)
138(195)	1251(562)	225(324)
78(117)	428(719)	46(23)
129(85)	821(1144)	162(304)

2 Hacienda Bl. & Nelson Av.

160(54)	978(916)	89(34)
91(40)	235(114)	18(11)
175(153)	261(134)	287(274)
296(162)	1193(1695)	120(108)

3 Hacienda Bl. & Valley Bl.

230(147)	1002(1066)	338(249)
184(258)	665(981)	159(272)
327(587)	1451(1225)	189(241)
332(287)	1512(1503)	155(310)

4 New Echelon Av. & Loukelton St.

Future Intersection

5 Echelon Av. & Amar Rd.

79(78)	163(66)	131(133)
60(89)	1257(737)	61(39)
49(108)	645(1029)	84(58)
87(77)	175(66)	45(23)

6 Echelon Av. & Loukelton St./ Glenhope Dr.

198(26)	79(108)	
104(86)	25(10)	
167(44)	32(18)	

7 Valinda Av. & Amar Rd.

81(62)	488(352)	196(266)
362(259)	1125(707)	70(89)
66(124)	557(834)	153(131)
119(103)	355(559)	43(111)

8 Azusa Av. & Amar Rd.

116(173)	1270(798)	405(496)
440(471)	1275(891)	165(171)
182(209)	765(937)	276(248)
270(343)	788(1481)	69(79)

9 Azusa Av. & Hurley St.

2072(1168)	165(103)	
242(314)	29(24)	220(186)
168(247)	25(11)	329(270)
137(253)	1164(2227)	258(339)

N

EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2018) WITH PROJECT TRAFFIC VOLUMES (IN PCE)

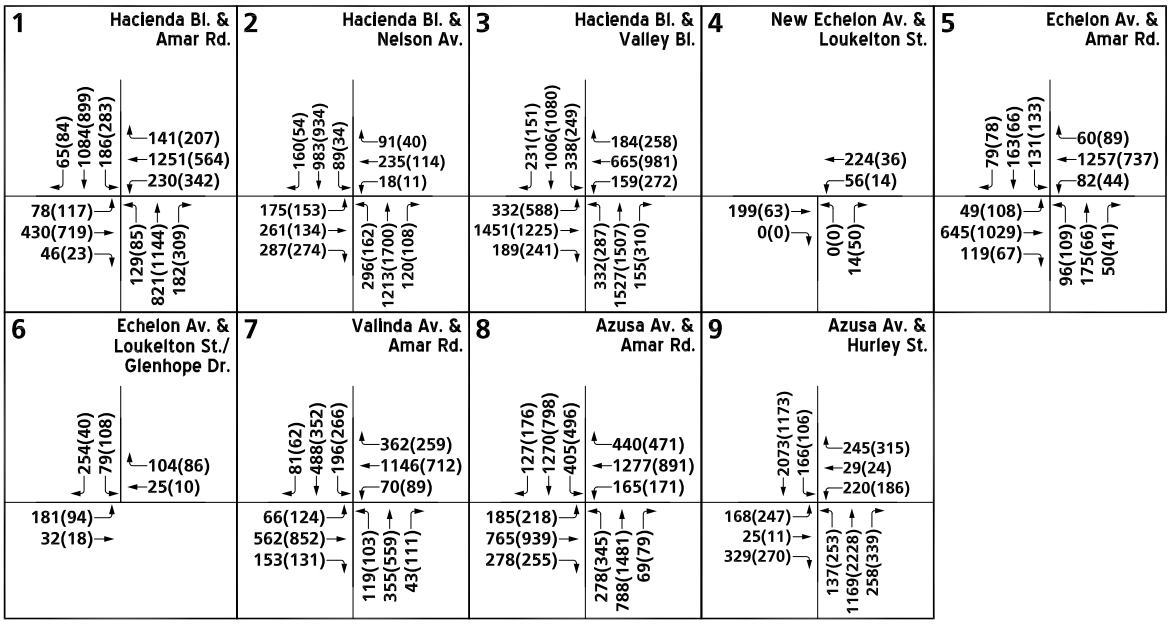

Table 6-1

Intersection Analysis for Opening Year Cumulative (2018) Conditions

#	Intersection	Traffic Control[2]	2018 Without Project ICU (v/c) or Delay (secs.)[1] AM	2018 Without Project ICU (v/c) or Delay (secs.)[1] PM	2018 Without Project Level of Service AM	2018 Without Project Level of Service PM	2018 With Project ICU (v/c) or Delay (secs.)[1] AM	2018 With Project ICU (v/c) or Delay (secs.)[1] PM	2018 With Project Level of Service AM	2018 With Project Level of Service PM	Change in v/c AM	Change in v/c PM	Significant Impact?[3]
1	Hacienda Bl. / Amar Rd.												
	ICU:	TS	0.860	**1.004**	D	**F**	0.865	**1.018**	D	**F**	0.005	0.014	No
	HCM:	TS	37.0	48.1	D	D	40.2	50.1	D	D			
2	Hacienda Bl. / Nelson Av.												
	ICU:	TS	0.876	0.759	D	C	0.877	0.760	D	C	0.001	0.001	N/A
	HCM:	TS	35.7	26.1	D	C	35.7	26.1	D	C			
3	Hacienda Bl. / Valley Bl.												
	ICU:	TS	**1.016**	**1.095**	**F**	**F**	**1.019**	**1.096**	**F**	**F**	0.003	0.001	No
	HCM:	TS	51.9	**80.9**	D	**F**	52.9	**81.1**	D	**F**			
4	New Echelon St. / Loukelton St.												
	HCM:	**CSS**	Future Intersection				9.4	8.8	A	A			N/A
5	Echelon Av. / Amar Rd.												
	ICU:	TS	0.811	0.667	D	B	0.817	0.690	D	B	0.006	0.023	N/A
	HCM:	TS	17.3	19.2	B	B	18.5	19.9	B	B			
6	Echelon Av. / Loukelton St.												
	HCM:	AWS	14.2	8.0	B	A	18.6	8.3	C	A			N/A
7	Valinda Av. / Amar Rd.												
	ICU:	TS	0.745	0.792	C	C	0.752	0.797	C	C	0.007	0.005	N/A
	HCM:	TS	27.8	38.6	C	D	28.0	38.8	C	D			
8	Azusa Av. / Amar Rd.												
	ICU:	TS	0.774	0.881	C	D	0.779	0.881	C	D	0.005	0.000	N/A
	HCM:	TS	34.9	35.3	C	D	35.1	36.0	D	D			
9	Azusa Av. / Hurley St.												
	ICU:	TS	**0.974**	**0.993**	**E**	**E**	**0.976**	**0.996**	**E**	**E**	0.002	0.003	No
	HCM:	TS	35.3	46.2	D	D	35.3	46.6	D	D			

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 ICU reported as a volume-to-capacity ratio and HCM delay reported in seconds. ICU reported from Traffix (Version 8.0) and HCM from Synchro (Version 9.1). Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. ICU and HCM report for all signalized intersections; however, ICU utilized for purposes of determining significant impacts.

2 TS = Traffic Signal; AWS = All Way Stop; CSS = Cross-street Stop; **CSS** = Improvement

3 To determine whether the addition of Project traffic at a study intersection results in a significant impact, the following thresholds of significance consistent with the Los Angeles County CMP will be utilized:

- A significant impact occurs at a signalized intersection if the addition of Project trips causes the peak hour LOS to fall from an acceptable LOS to an unacceptable LOS and the proposed Project increases the demand (v/c) by 0.02 or more.
- A significant impact occurs at a signalized intersection if the addition of Project trips to an intersection that is currently operating at an acceptable LOS (i.e., LOS E or F) causes the v/c to increase by 0.02 or more.
- A significant impact occur at an unsignalized intersection if the addition of Project rips causes the peak hour LOS to fall from an acceptable LOS to an unacceptable LOS.
- N/A = Not Applicable

A summary of the peak hour intersection LOS for Opening Year Cumulative Without and With Project conditions are shown on Exhibits 6-3 and 6-4, respectively. The intersection operations analysis worksheets for Opening Year Cumulative Without and With Project traffic conditions are included in Appendix 6.1 and Appendix 6.2 of this TIA, respectively.

6.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

For Opening Year Cumulative (2018) Without and With Project conditions, there are no intersections anticipated to meet either the peak hour or ADT volume based traffic signal warrants (see Appendix 6.3 and Appendix 6.4).

6.6 OPENING YEAR CUMULATIVE RECOMMENDED IMPROVEMENTS

The Project's contribution to the analysis locations were found to be less than significant. As such, no improvements have been recommended to the study area intersections.

EXHIBIT 6-3: OPENING YEAR CUMULATIVE (2018) WITHOUT PROJECT SUMMARY OF LOS

EXHIBIT 6-4: OPENING YEAR CUMULATIVE (2018) WITH PROJECT SUMMARY OF LOS

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7 HORIZON YEAR (2040) TRAFFIC CONDITIONS

This section discusses the methods used to develop Horizon Year (2040) Without and With Project traffic forecasts, and the resulting intersection operations and traffic signal warrants.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access, which are anticipated to be in place for Horizon Year (2040) traffic conditions.

7.2 HORIZON YEAR WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes, an ambient growth factor of 12.72% (0.5% compounded annually over 24-years), and traffic from pending and approved but not yet constructed known development projects in the area. The weekday ADT, AM and PM peak hour volumes which can be expected for Horizon Year Without Project traffic conditions are shown on Exhibit 7-1.

7.3 HORIZON YEAR WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes, an ambient growth factor of 12.72%, traffic from pending and approved but not yet constructed known development projects in the area, and the addition of Project traffic. The weekday ADT, AM and PM peak hour volumes which can be expected for Horizon Year With Project traffic conditions are shown on Exhibit 7-2.

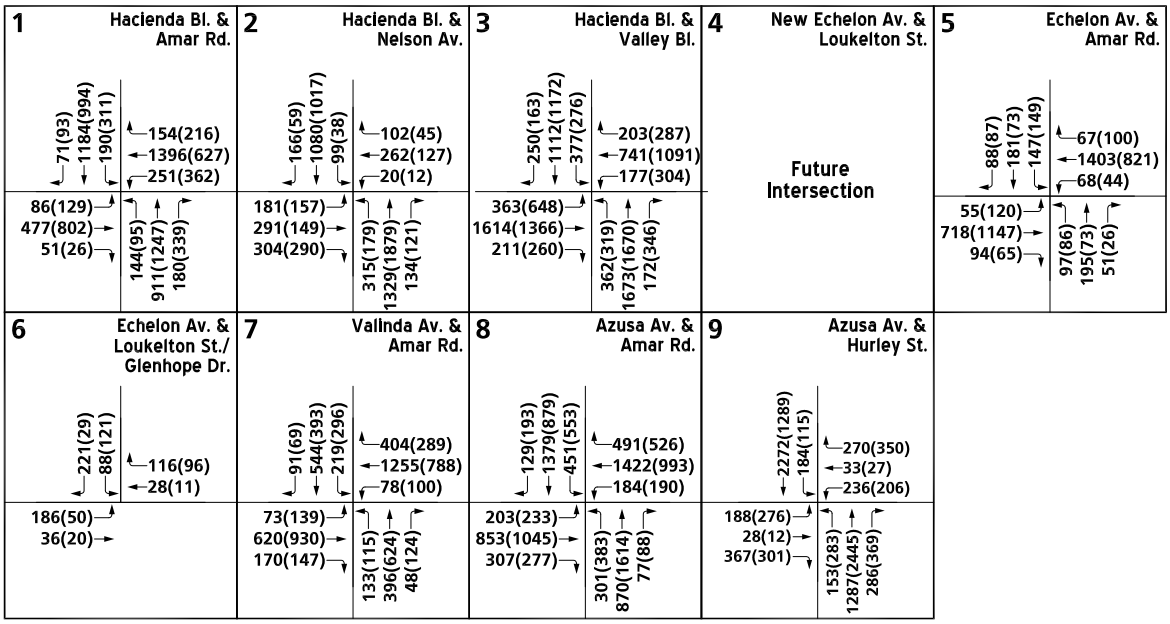
7.4 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative Without Project conditions, with roadway and intersection geometrics consistent with Section 7.1 *Roadway Improvements*. As shown in Table 7-1, the following additional study area intersection is anticipated to operate at an unacceptable LOS, in addition to those previously identified under Existing (2016) and Opening Year Cumulative (2018) traffic conditions under Horizon Year (2040) Without Project traffic conditions:

- Hacienda Bl. / Nelson Av. (#2) – LOS E AM peak hour only
- Azusa Av. / Amar Rd. (#8) – LOS E PM peak hour only

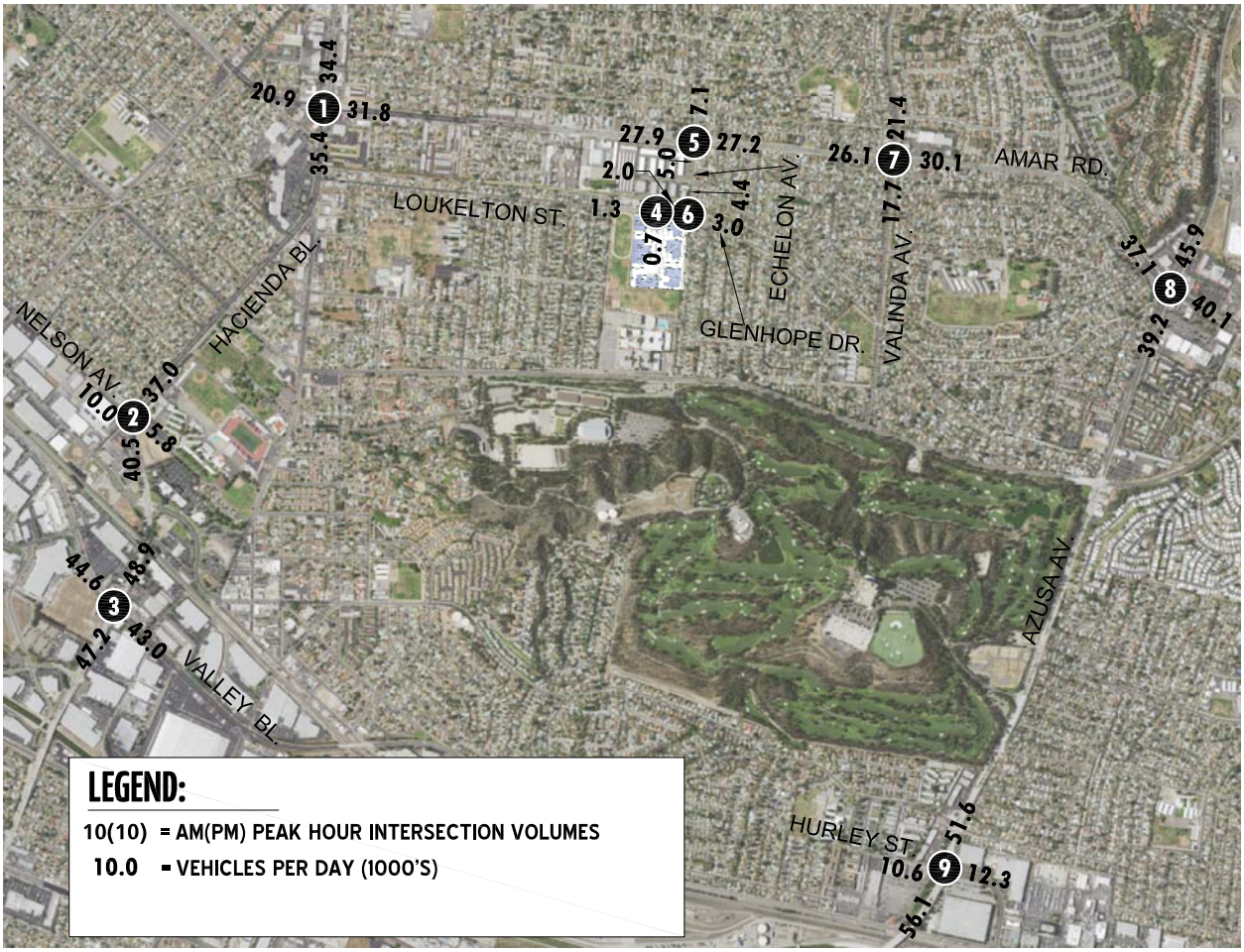
The addition of Project traffic is anticipated to change the v/c by less than 2 percent (0.02) at each of the 5 deficient study area intersections. As such, the addition of Project traffic does not result in a significant cumulative impact at the study area intersections based on the City of Industry's threshold of significance.

EXHIBIT 7-1: HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)



N

EXHIBIT 7-2: HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



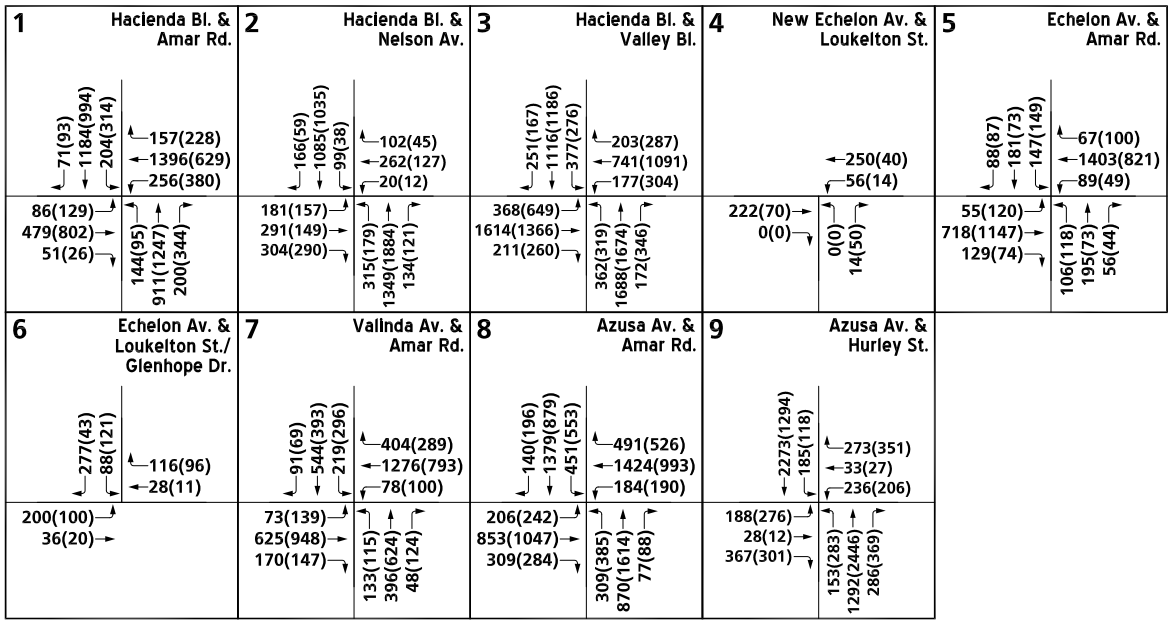


Table 7-1

Intersection Analysis for Horizon Year (2040) Conditions

#	Intersection	Traffic Control[2]	2040 Without Project ICU (v/c) or Delay (secs.)[1] AM	2040 Without Project ICU (v/c) or Delay (secs.)[1] PM	2040 Without Project Level of Service AM	2040 Without Project Level of Service PM	2040 With Project ICU (v/c) or Delay (secs.)[1] AM	2040 With Project ICU (v/c) or Delay (secs.)[1] PM	2040 With Project Level of Service AM	2040 With Project Level of Service PM	Change in v/c AM	Change in v/c PM	Significant Impact?[3]
1	Hacienda Bl. / Amar Rd.												
	ICU:	TS	**0.936**	**1.102**	**E**	**F**	**0.949**	**1.116**	**E**	**F**	0.013	0.014	No
	HCM:	TS	41.5	**57.4**	D	**E**	42.6	**60.2**	D	**E**			
2	Hacienda Bl. / Nelson Av.												
	ICU:	TS	**0.941**	0.822	**E**	D	**0.942**	0.823	**E**	D	0.001	0.001	No
	HCM:	TS	39.4	29.8	D	C	39.5	34.4	D	C			
3	Hacienda Bl. / Valley Bl.												
	ICU:	TS	**1.118**	**1.205**	**F**	**F**	**1.121**	**1.206**	**F**	**F**	0.003	0.001	No
	HCM:	TS	**68.5**	**102.0**	**E**	**F**	**69.8**	**102.2**	**E**	**F**			
4	New Echelon St. / Loukelton St.												
	HCM:	**CSS**	Future Intersection				9.6	8.8	A	A			N/A
5	Echelon Av. / Amar Rd.												
	ICU:	TS	0.893	0.733	D	C	0.899	0.756	D	C	0.006	0.023	N/A
	HCM:	TS	19.9	20.9	B	C	19.9	23.2	B	C			
6	Echelon Av. / Loukelton St.												
	HCM:	AWS	17.7	8.2	C	A	25.9	8.6	D	A			N/A
7	Valinda Av. / Amar Rd.												
	ICU:	TS	0.813	0.872	D	D	0.820	0.877	D	D	0.007	0.005	N/A
	HCM:	TS	30.1	43.3	C	D	30.3	43.5	C	D			
8	Azusa Av. / Amar Rd.												
	ICU:	TS	0.844	**0.962**	D	**E**	0.849	**0.963**	D	**E**	0.005	0.001	No
	HCM:	TS	37.9	39.2	D	D	38.2	40.2	D	D			
9	Azusa Av. / Hurley St.												
	ICU:	TS	**1.067**	**1.088**	**F**	**F**	**1.069**	**1.091**	**F**	**F**	0.002	0.003	No
	HCM:	TS	41.8	53.7	D	D	41.9	54.3	D	D			

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 ICU reported as a volume-to-capacity ratio and HCM delay reported in seconds. ICU reported from Traffix (Version 8.0) and HCM from Synchro (Version 9.1). Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. ICU and HCM report for all signalized intersections; however, ICU utilized for purposes of determining significant impacts.

2 TS = Traffic Signal; AWS = All Way Stop; CSS = Cross-street Stop; **CSS** = Improvement

3 To determine whether the addition of Project traffic at a study intersection results in a significant impact, the following thresholds of significance consistent with the Los Angeles County CMP will be utilized:

- A significant impact occurs at a signalized intersection if the addition of Project trips causes the peak hour LOS to fall from an acceptable LOS to an unacceptable LOS and the proposed Project increases the demand (v/c) by 0.02 or more.
- A significant impact occurs at a signalized intersection if the addition of Project trips to an intersection that is currently operating at an acceptable LOS (i.e., LOS E or F) causes the v/c to increase by 0.02 or more.
- A significant impact occur at an unsignalized intersection if the addition of Project rips causes the peak hour LOS to fall from an acceptable LOS to an unacceptable LOS.
- N/A = Not Applicable

The study area includes the following two analysis locations that were also evaluated as part of the City of Industry's General Plan Update:

- Hacienda Bl. / Valley Bl. (#3)
- Azusa Avenue / Hurley St. (#9)

The findings in this TIA are consistent with those in the General Plan Update, which recognizes that these locations would operate at unacceptable levels under long-range traffic conditions without additional improvements. However, as noted previously, the addition of Project traffic is less than cumulatively considerable as the change in v/c does not meet the City of Industry's threshold of significance for deficient intersections.

A summary of the peak hour intersection LOS for Horizon Year Without and With Project conditions are shown on Exhibits 7-3 and 7-4, respectively. The intersection operations analysis worksheets for Horizon Year Without and With Project traffic conditions are included in Appendix 7.1 and Appendix 7.2 of this TIA, respectively.

In an effort to demonstrate consistency with the City's most recent General Plan Update, the improvement needs identified at the intersections of Hacienda Boulevard at Valley Boulevard and Azusa Avenue at Hurley Street in the General Plan Update EIR were also evaluated (see Table 7-2). The analysis results shown in Table 7-2 are provided for informational purposes to demonstrate that the improvements identified in the General Plan Update EIR would improve the long-range deficiencies identified in this TIA back to either acceptable LOS or LOS results consistent with those published in the General Plan Update EIR.

7.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

For Horizon Year (2040) Without and With Project conditions, there are no intersections anticipated to meet either the peak hour or ADT volume based traffic signal warrants (see Appendix 7.3 and Appendix 7.4).

7.6 HORIZON YEAR RECOMMENDED IMPROVEMENTS

The Project's contribution to the analysis locations were found to be less than significant. As such, no improvements have been recommended to the study area intersections.

EXHIBIT 7-3: HORIZON YEAR (2040) WITHOUT PROJECT SUMMARY OF LOS

EXHIBIT 7-4: HORIZON YEAR (2040) WITH PROJECT SUMMARY OF LOS

Table 7-2

Intersection Analysis for Horizon Year (2040) Conditions With General Plan Update Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	ICU (v/c) or Delay (secs.)[2] AM	ICU (v/c) or Delay (secs.)[2] PM	Level of Service AM	Level of Service PM
3	Hacienda Bl. / Valley Bl.																	
	- ICU																	
	Without Improvements	TS	2	3	0	1	3	0	2	3	1>	2	3	0	**1.121**	**1.206**	**F**	**F**
	With Improvements	TS	2	**4**	0	**2**	3	**1**	2	3	1>	2	3	**1**	0.892	**0.910**	D	**E**
	- HCM																	
	Without Improvements	TS	2	3	0	1	3	0	2	3	1>	2	3	0	**69.8**	**102.2**	**E**	**F**
	With Improvements	TS	2	**4**	0	**2**	3	**1**	2	3	1>	2	3	**1**	51.9	**63.3**	D	**E**
9	Azusa Av. / Hurley St.																	
	- ICU																	
	Without Improvements	TS	1	3	1	1	3	0	1	1	1	1	1	1	**1.069**	**1.091**	**F**	**F**
	With Improvements	TS	1	3	1	1	**4**	0	1	1	**1>**	1	1	1	0.855	**0.993**	D	**E**
	- HCM																	
	Without Improvements	TS	1	3	1	1	3	0	1	1	1	1	1	1	41.9	54.3	D	D
	With Improvements	TS	1	3	1	1	**4**	0	1	1	**1>**	1	1	1	34.6	48.8	C	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. Improvements are consistent with those identified in the City's General Plan Update EIR.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; **1** = Improvement

[2] ICU reported as a volume-to-capacity ratio and HCM delay reported in seconds. ICU reported from Traffix (Version 8.0) and HCM from Synchro (Version 9.1). Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. ICU and HCM report for all signalized intersections; however, ICU utilized for purposes of determining significant impacts.

[3] TS = Traffic Signal

8 REFERENCES

[1] Los Angeles County Metropolitan Transportation Authority, Congestion Management Program, 2010.

[2] Transportation Research Board, Highway Capacity Manual (HCM), Washington, D.C.: National Academy of Sciences, 2010.

[3] Federal Highway Administration, "Manual on Uniform Traffic Control Devices (MUTCD)," in *California Manual on Uniform Traffic Control Devices (CAMUTCD)*, 2014.

[4] City of Carson, City of Carson General Plan Transportation and Infrastructure Element, Carson, Adopted October 11,2004.

[5] Institute of Transportation Engineers, "Trip Generation Handbook," 2004.

[6] Institute of Transportation Engineers, Trip Generation, 9th Edition ed., 2012.

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Exhibit C
Mitigation Monitoring and Reporting Program

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CITY OF INDUSTRY

ECHELON AVENUE COMMERCE PARK

MITIGATION MONITORING AND REPORTING PROGRAM

Lead Agency:

CITY OF INDUSTRY
15625 E. STAFFORD STREET, SUITE 100
INDUSTRY, CA 91744

OCTOBER 2016

1. INTRODUCTION

This document is the Mitigation Monitoring and Reporting Program (MMRP) for the Echelon Avenue Commerce Park project. An MMRP is required for the proposed project because the Initial Study/Mitigated Negative Declaration has identified potentially significant adverse impacts, and measures have been identified to mitigate those impacts. This MMRP has been prepared pursuant to Section 21081.6 of the California Public Resources Code, which requires public agencies to "adopt a reporting and monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment."

2. MITIGATION MONITORING AND REPORTING PROGRAM

As the lead agency, the City of Industry will be responsible for monitoring compliance with all mitigation measures. Different City departments are responsible for various aspects of the project. The MMRP identifies the department with the responsibility for ensuring the measure is completed; however, it is expected that one or more departments will coordinate efforts to ensure compliance.

The MMRP is presented in tabular form on the following pages. The components of the MMRP are described briefly below.

- **Mitigation Measure:** The mitigation measures are taken from the Initial Study/Mitigated Negative Declaration (IS/MND), in the same order they appear in the IS/MND.

- **Timing:** Identifies at which stage of the project the mitigation must be completed.

- **Monitoring Responsibility:** Identifies the department in the City with responsibility for mitigation monitoring.

- **Verification (Date and Initials):** Provides a contact who reviewed the mitigation measure and the date the measure was determined complete.

MITIGATION MONITORING AND REPORTING PROGRAM MATRIX

CITY OF INDUSTRY
ECHELON AVENUE COMMERCE PARK PROJECT

	Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
Aesthetics				
AES-1	Prior to issuance of a building permit, the City of Industry Planning Department shall ensure that all exterior lighting is designed to minimize off-site glare. This may include, without limitation, the use of shielded or recessed lighting fixtures.	Prior to issuance of building permit	City of Industry Planning Department	
Air Quality				
AQ-1	During construction activities, the project applicant and/or its contractor shall ensure that all off-road diesel-fueled equipment (e.g., rubber-tired dozers, graders, scrapers, excavators, asphalt paving equipment, cranes, and tractors) is California Air Resources Board (CARB) Tier 3 Certified or better.[1]	Prior to ground disturbing activities	City of Industry Planning Department	
CULTURAL RESOURCES				
CUL-1	If archaeological resources are encountered during project construction, all construction activities in the vicinity of the find must halt until an archaeologist certified by the Society of Professional Archeologists examines the site, identifies the archaeological significance of the find, and recommends a course of action. Construction cannot resume until the site archaeologist states in writing that the proposed construction activities will not damage significant archaeological resources.	During all ground-disturbing construction activities	City of Industry Planning Department and City Engineer	
CUL-2	If paleontological resources are encountered during project construction, all construction activities in the vicinity of the find must halt until a professional paleontologist examines the site, identifies the paleontological significance of the find, and recommends a course of action. Construction cannot resume until the site paleontologist states in writing that the proposed construction activities will not damage significant paleontological resources.	During all ground-disturbing construction activities	City of Industry Planning Department and City Engineer	

[1] The Clean Air Act of 1990 directed the EPA to study, and regulate if warranted, the contribution of off-road internal combustion engines to urban air pollution. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the EPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the EPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 horsepower and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards.

	Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
HAZARDS AND HAZARDOUS MATERIALS				
HAZ-1	In the event that soil or groundwater contamination is encountered which could present a threat to human health or the environment during construction in the project area, construction activities in the immediate vicinity of the contamination must immediately cease. If contamination is encountered, a Risk Management Plan must be prepared and implemented that (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development and (2) describes measures to be taken to protect workers and the public from exposure to potential site hazards. Such measures could include a range of options including, without limitation, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies must be notified (e.g., Los Angeles County Fire Department). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration (OSHA) requirements must be prepared and in place before commencement of work in any contaminated area.	During all ground-disturbing construction activities	City of Industry Planning Department and City Engineer	
5.5 NOISE				
NOI-1	In order to reduce construction noise, the proposed concrete masonry block wall along the eastern, southern, and western boundaries of the project site shall be constructed before any other proposed construction activities commence. Or, if it is the case that this sequence of construction is impractical, a temporary noise barrier or enclosure shall be used along the eastern, southern, and western property lines to break the line of sight between the construction equipment and the adjacent residences. The temporary noise barrier shall have a sound transmission class (STC) of 35 or greater in accordance with American Society for Testing and Materials Test Method E90, or at least 2 pounds per square foot, to ensure adequate transmission loss characteristics. In order to achieve this, the barrier may consist of steel tubular framing, welded joints, a layer of 18-ounce tarp, a 2-inch-thick fiberglass blanket, half-inch-thick weatherwood asphalt sheathing, and 7/16-inch sturdy board siding. In addition, to avoid objectionable noise reflections, the source side of the noise barrier shall be lined with an acoustic absorption material meeting a noise reduction coefficient rating of 0.70 or greater in accordance with American Society for Testing and Materials Test Method C423..	Prior to ground-disturbing construction activities	City of Industry Planning Department	
NOI-1	The project improvement and building plans shall include the following requirements for construction activities: 1. Construction shall be restricted to the hours of 7:00 AM to 7:00 PM Monday through Saturday and shall be prohibited at any time on Sunday or a federal holiday. 2. To ensure that other noise level standards for longer-duration activities (i.e., the L25 and L50 limits for activities occurring for 15 and 30 minutes per hour, respectively) are not breached by project trucking operations, nonessential on-site truck maneuvering will be restricted to a duration of no more than 10 minutes and on-site	Prior to ground-disturbing construction activities	City of Industry Planning Department	

	Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
	truck idling will be restricted to a duration of no more than 5 minutes, for a total duration of not more than 15 minutes for each truck trip. 3. All maneuvering, including backing, will be conducted as far away from the eastern property line as practical. 4. All internal combustion engine–driven equipment shall be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment. 5. Stationary, noise-generating equipment (e.g., generators and compressors) shall be located as far as possible from adjacent residential properties. 6. If stationary, noise-generating equipment must be located near existing residential properties for extended periods of time, such equipment shall have temporary acoustical enclosures, blanketing, or barriers to reduce the noise emissions. 7. The contractor shall use "quiet" air compressors and other stationary noise sources where such technology exists. 8. The contractor shall reduce nonessential idling of construction equipment to no more than 5 minutes. 9. Signs with the operations procedures shall be used to enforce this restriction.			
NOI-1	The project improvement and building plans will include the following requirements for construction activities: 1. A minimum of a 10-foot-wide landscape buffer shall be included in the project design along the entire east property line in order to buffer the adjacent residential use from the project site. 2. A 10-foot-high concrete masonry block wall shall be incorporated into the site plan along the easterly property line between the 10-foot-wide landscape buffer and the adjacent residential neighborhood. The wall shall continue along the entire length of the southern and western property lines at a height of 6 feet minimum. 3. All truck dock loading areas shall be designed to be positioned in such a way to be visually blocked from any residential use. 4. All dock loading areas shall be positioned toward the center of the project site and away from the residential neighborhoods to the east and west in order to minimize truck and loading-related noise. 5. All noise-making stationary, mechanical equipment shall be located toward the center of the project site. The three buildings nearest to the eastern boundary of the site shall be limited to placement of said noise-making stationary, mechanical equipment toward the west half of the building roof.	Ongoing	City of Industry Planning Department	

Mitigation Measure	Timing	Monitoring Responsibility	Verification (Date and Initials)
5.6 TRANSPORTATION/TRAFFIC			
TRANS-1 *New Echelon Street/Loukelton Street:* The project applicant shall install a stop control on the northbound approach and construct the intersection with the following geometrics: • Northbound approach: One shared left-right turn lane • Southbound approach: Not applicable (N/A) • Eastbound approach: One shared through-right turn lane • Westbound approach: One shared left-through lane	Prior to the issuance of the first building permit	City of Industry Planning Department	

Attachment 12
Resolution No. CC 2016-79

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RESOLUTION NO. CC 2016-79

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA, APPROVING TENTATIVE PARCEL MAP 350 TO SUBDIVIDE AN EXISTING 13.4 ACRE PARCEL INTO SEVEN PARCELS, ZONE EXCEPTION 16-1 FOR A REDUCED SETBACK ON LOUKELTON STREET AND MINOR PARKING AND LANDSCAPING DEVIATIONS, AND DEVELOPMENT PLAN NO. 16-3 FOR THE CONSTRUCTION OF SEVEN INDUSTRIAL WAREHOUSE BUILDINGS AT THE PROPERTY LOCATED SOUTHWEST OF THE INTERSECTION OF LOUKELTON STREET AND ECHELON AVENUE IN THE CITY OF INDUSTRY, CALIFORNIA

RECITALS

WHEREAS, on February 24, 2016, Donlon Builders filed an application for approval of Tentative Parcel Map ("TPM") No. 350, Zone Exception ("ZE") 16-1, and Development Plan ("DP") No. 16-3 described herein ("Application"); and

WHEREAS, the Application applies to a 13.4 acre property located southwest of the intersection of Loukelton Street and Echelon Avenue, City of Industry, California, Assessor's Parcel Numbers 8250-001-020 ("Property"); and

WHEREAS, the Applicant desires to subdivide the Property into seven parcels within the "I" Industrial Zone, and construct seven industrial warehouse buildings with a total combined 246,543 square feet (the "Project"), and in accordance with Sections 16.12.030 and 17.36.020 of the City's Municipal Code ("Code"), a Tentative Parcel Map and Development Plan are required for the subdivision of land and the creation of new parcels, and to construct the Project; and

WHEREAS, the Application includes a request for a Zone Exception for a reduced street setback on Loukelton Street. The Municipal Code Section 17.36.070 requires a minimum 30 foot setback from all streets. A 15 foot street setback is proposed for building A and building E along Loukelton Street. In accordance with Chapter 17.40 of the Code, a Zone Exception is required for this request; and

WHEREAS, the Application also includes a request for minor deviations from the parking requirements with respect to each building. Each of the proposed parking deviations is less than 10 percent. Section 17.36.060.K of the Municipal Code requires that buildings between 25,000 square feet and 100,000 square feet provide 1 space per 500 square feet 50 for the first 25,000 square feet plus one space per 750 square feet of floor area over 25,000 square feet. Based on this formula, Building A requires 62 parking spaces, and 55 parking spaces are proposed. Building B requires 55 parking spaces, and 49 spaces are provided. Building C requires 53 parking spaces, and 47 spaces are provided. Building D requires 71 parking spaces, and 63 spaces are

provided. Building E requires 62 parking spaces, and 55 spaces are provided. Building F requires 65 parking spaces, and 58 spaces are provided. Building G requires 74 parking spaces, and 66 spaces are provided. There are 45 fewer spaces for all seven buildings than required by the Code, but the reduced parking is within the ten percent deviation that can be acted upon administratively by the Planning Department. In working with Staff, the applicant reduced parking in order to maximize the amount of landscaping along the eastern Property line to help screen the buildings and loading docks and maximize the separation from nearby residential uses.

WHEREAS, the Application further requests a minor deviation from the minimum landscaping requirements for Buildings D and F. Section 17.36.060.Q of the Municipal Code requires that a minimum of 12 percent of the site be devoted to landscaping. Building D and building F are proposing 11%, which is within the ten percent deviation that can be acted upon administratively by the Planning Department. The goal of the City is to maximize landscaping along the street frontage and in areas clearly visible from public areas. The applicant has located the majority of the required landscaping along the New Echelon Avenue, and Loukalton Street frontages. The applicant also provided a 10 foot landscape buffer along the eastern Property line. Gaining the additional landscaping in areas of the lot that are not visible in order to strictly meet the 12 percent standard was not deemed as critical as maximizing the building setback on the eastern side and amount of landscaping along the street frontages and within the ten foot easterly landscape buffer; and

WHEREAS, Staff recommends approval of the Zone Exceptions given the location of the Property, and because of the surrounding residential uses. City staff is more concerned with requiring the Applicant to build a ten foot tall block wall and a ten foot wide landscape buffer on the eastern Property line. City Staff also wanted to maximize the setback of the buildings and requiring that the loading docks be on the west side of buildings E, F and G. The setback from the east Property line for building E is 61 feet, building F is 61 feet and building G is 38 feet; and

WHEREAS, pursuant to Section 17.40.020 of the City's Code, the City Council may grant an exception to the City's development standards where (1) the exception is necessary for the preservation of a substantial property right, and (2) the exception will not be materially detrimental to the public welfare nor to the property of other persons located in the vicinity thereof; and

WHEREAS, Section 17.40.030 of the City's Code provides that an exception to the City's development standards may be granted where practical difficulties or unnecessary hardships interfere with carrying out the strict letter of the Municipal Code, and the spirit of the Code will be observed, public safety secured, and substantial justice done; and

WHEREAS, granting the Zoning Exceptions will allow for the preservation of a substantial property right, by accommodating the development of a well-designed, marketable, and efficient industrial building, and will not be materially detrimental to the public welfare nor to property located in the vicinity because of the proximity of the residential uses to the east of the Property, a 15 foot setback on Loukelton Street has helped the Applicant provide a ten foot block wall, a ten foot wide landscape buffer and provides larger side setbacks on the east Property line; and

WHEREAS, the Land Use Element of the General Plan designates the Property as Employment. The Project is consistent with the General Plan as the construction of industrial buildings is similar to other industrial and manufacturing buildings in the same land use designation, and does not conflict with the established goals and objectives of the Land Use Element; and

WHEREAS, an Environmental Assessment form was submitted by the Applicant pursuant to the City's requirements. Based upon the information received and Staff's review and assessment, it was determined that the Application would not have a significant impact on the environment with mitigation measures incorporated, and a Mitigated Negative Declaration ("MND") was prepared in accordance with the requirements of the California Environmental Quality Act ("CEQA"), California Public Resources Code section 21000 et seq., the State CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, sections 15000 *et seq.*, and the Environmental Impact Report Guidelines of the City of Industry; and

WHEREAS, the Initial Study/MND was circulated for public and agency review and comment on September 23, 2016 through, and including, October 12, 2016; and

WHEREAS, the Initial Study/MND concluded that implementation of the Project could result in a significant effect on the environment and by incorporating mitigation measures that would reduce the significant effects to a less-than-significant level; and

WHEREAS, notice of the Planning Commission's October 13, 2016, public hearing on the Application was published in The San Gabriel Valley Tribune on September 30, 2016, in compliance with the City's Code and Government Code Section 65091, and was posted at the Property and at three public places on September 30, 2016; and

WHEREAS, on October 13, 2016, the Planning Commission of the City of Industry conducted a duly noticed public hearing on the Application, and reviewed and carefully considered all testimony written and oral, and recommended that the City Council adopt the Initial Study/MND and mitigation monitoring and reporting program ("MMRP"), Tentative Parcel Map, Zone Exception, and the Development Plan for the Project; and

WHEREAS, on December 8, 2016, the City Council of the City of Industry conducted a duly noticed public hearing on the Application, and considered all testimony written and oral; and

WHEREAS, all legal prerequisites have occurred prior to the adoption of this Resolution.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF INDUSTRY DOES HEREBY RESOLVE, DETERMINE, FIND, AND ORDER AS FOLLOWS:

SECTION 1: The City Council finds that all of the facts set forth in the Recitals are true and correct, and are incorporated herein by reference.

SECTION 2: All necessary public hearings and opportunities for public testimony and comment have been conducted in compliance with State law and the City's Code.

SECTION 3: Based upon substantial evidence presented to the City Council during the December 8, 2016 public hearing, including public testimony and written and oral staff reports, and which includes without limitation, CEQA, the CEQA Guidelines, the MND and MMRP, and the City's Code, the City Council finds as follows:

A. The Project is located in an area designated as Employment in the General Plan, which allows for industrial uses when zoned appropriately. In this case, the Property is zoned industrial, and industrial/warehouse buildings are permitted, and conform to the Employment land use designation. Policy LU1-1 of the General Plan states that the City should accommodate business and employment uses as the primary land use. The Project would allow industrial/warehouse buildings in keeping with surrounding uses and in accordance with the direction of the General Plan, and is therefore consistent with the General Plan. The Property is not located within an adopted specific plan; and

B. The Project's design and improvements comply with the minimum size, frontage, access, and drainage requirements addressed in Section 16.10 of the Municipal Code and the development standards in Section 17.36 of the Municipal Code. The Property is not located within an adopted specific plan; and

C. The site of the Project is physically suitable for the type of development. The Property is flat, and there are no known physical or environmental hazards; and

D. The site of the Project is physically suitable for the proposed density of development. The Subdivision would result in seven parcels that exceed minimum lot area and width requirements. The Project complies with building coverage requirements; and

E. The design or the proposed improvements will not cause substantial environmental damage or substantially and unavoidably injury fish or wildlife or their habitat. As documented in the MND, with mitigation measures incorporated, the significant environmental impacts of the proposed project will be reduced to less than significant levels; and

F. The design or improvements will not cause serious public health problems. As documented in the MND, the Project complies with development standards, complies with access and circulation requirements, does not alter emergency response, is not located in flood zones, near active earthquake faults, will not be used to store or produce hazardous materials, and will comply with applicable building and fire codes; and

G. The design or improvement will not conflict with easements. All easements are identified on Tentative Parcel Map 350 and the proposed improvements will not conflict with, be located on, or alter the easements; and

H. The discharge of waste from the proposed Subdivision will not violate the requirements of the Los Angeles Regional Water Quality Control Board because a preliminary Low Impact Development ("LID") plan has been reviewed by the City Engineer and found in compliance with the provisions of Chapter 13.16, Stormwater and Urban Runoff Pollution Control. Prior to issuance of the grading permit, the final LID must be found to conform to the preliminary LID and approved by the City Engineer. As a condition for issuing a certificate of occupancy or building final, the city will require facility operators and owners to build all the stormwater pollution control BMPs and structural or treatment BMPs that are shown on the approved project stormwater mitigation plan and to submit a signed certification statement stating that the site and all structural or treatment control BMPs will be maintained in compliance with the municipal NPDES permit and other applicable regulatory requirements.

I. The Subdivision will provide, to the extent feasible, for future passive or natural heating or cooling opportunities. In terms of passive or natural heating opportunities, the Subdivision would accommodate a structure that can be oriented in an east-west alignment to allow a southern exposure. In terms of passive or natural cooling opportunities, the Subdivision is located in an area where the prevailing winds are from the west and is configured to allow a structure to be oriented such that it may take advantage of prevailing breezes. The Property is a flat and conforms to the allowable densities and lot area that may be occupied by a building. The Project will comply with the requirements of the California Green Code, which stipulates minimum insulation standards, energy efficient lighting and appliances, and other provisions intended to improve energy efficiency and reduce greenhouse gases and water consumption.

J. The Project is consistent with Section 66412.3 of the Subdivision Map Act

regarding the City's share of the regional housing need and that it balances the housing needs of the region against the public service needs of the City's residents and available fiscal and environmental resources because the subdivision is located in the City's Industrial Zone, and is therefore only suitable for industrial development, and no residential development is permitted.

K. Based on the foregoing, the City Council hereby approves Tentative Parcel Map 350 subject to the Conditions of Approval, attached hereto as Exhibit A, and incorporated herein by reference.

SECTION 4: Based upon substantial evidence presented to the City Council during the November 8, 2016 public hearing, including public testimony and written and oral staff reports, and which includes without limitation, CEQA, the CEQA Guidelines, the MND and MMRP, and the City's Code, the City Council finds as follows:

A. Zoning Exceptions for the setback, parking and landscaping requirements are necessary for the preservation of a substantial property right because the exceptions would allow a well-designed, marketable, and efficient industrial building while preserving the character of the adjacent residential uses by screening the loading areas and minimizing noise impacts to the nearby residential uses.

B. Such Zoning Exceptions will not be materially detrimental to the public welfare, or to the property of other persons located in the vicinity thereof because the exceptions will assist with the preservation of the character of the adjacent residential uses by screening the loading areas and minimizing noise impacts to those nearby uses.

C. There are practical difficulties in the way of carrying out the strict letter of this title in that, if the setback, parking and landscaping requirements were imposed, the project could not accommodate such a large buffer between the project site and the adjacent residential uses. The additional setback area adjacent to the residential uses observes the spirit of this title, by promoting the general health and welfare of the community, and ensuring that development is done in an orderly fashion with minimal impacts to surrounding uses, thereby, substantial justice is done.

D. Based on the foregoing, the City Council hereby approves the Zone Exceptions to allow a 15 foot front setback on for building A and E on Loukelton Street, a minor exception for a reduced parking requirement for buildings A thru G that is within the 10 percent deviation requirement, and a minor exception to allow less than the required 12 percent landscaping required for buildings D and F but within the 10 percent deviation allowed administratively, subject to the Conditions of Approval, attached hereto as Exhibit A, and incorporated herein by reference.

SECTION 5: Based upon substantial evidence presented to the City Council during the December 8, 2016 public hearing, including public testimony and written and oral staff reports, and which includes without limitation, CEQA, the CEQA Guidelines, the MND and MMRP, and the City's Code, the City Council finds as follows:

A. The Property is suitable for development in accordance with the Development Plan because the Property is subdivided to comply with minimum lot area and frontage requirements, is flat and free from hazards as noted in the accompanying Initial Study/MND, and is designated as Employment in the General Plan and zoned Industrial, which are consistent with the proposed industrial development; and

B. The total development is arranged so as to avoid traffic congestion, ensure the public health, safety and general welfare or prevent adverse effects upon neighboring properties because, because, as noted in the accompanying Initial Study/MND, the Project would add approximately 701 daily vehicle trips, which equates to approximately 70 AM trips and 64 PM trips an hour, which would not significantly impact road capacity. In addition, the proposed Project provides the necessary setback of the building and loading areas, adequately screens the loading area, presents a professional and coordinated architectural and landscape design. In addition, the attached conditions of approval set operational and management standards that ensure the business that will operate in a manner consistent with the General Plan's policies related to noise, safety, property maintenance, and maintaining a professional appearance; and

C. The development is in general accord with all elements of the Industry Zoning Ordinance because, with the approval of the Development Plan, and Zone Exceptions, the project complies with development standards in regards to building setbacks, height, parking, access, screening, and design; and

D. The development is consistent with the provisions of the City's General Plan because is the Property is designated as Employment, which allows the development of buildings for industrial uses; and

E. Based on the foregoing, the City Council hereby approves Development Plan No. 16-3, subject to the Conditions of Approval, attached hereto as Exhibit A, and incorporated herein by reference.

SECTION 6: The provisions of this Resolution are severable and if any provision, clause, sentence, word or part thereof is held illegal, invalid, unconstitutional, or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, sections, words or parts thereof of the Resolution or their applicability to other persons or circumstances.

SECTION 7: That the City Clerk shall certify to the adoption of this Resolution and that the same shall be in full force and effect.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Industry at a regular meeting held on December 8, 2016, by the following vote:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

_____
Mark D. Radecki, Mayor

ATTEST:

_____
Diane M. Schlichting, Chief Deputy City Clerk

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

EXHIBIT A

Standard Requirements and Conditions of Approval

Application: **Tentative Parcel Map 350, Zone Exception 16-1 and Development Plan 16-3**

Applicant: **Donlon Builders**

Location: **Southwest of the intersection of Loukelton Street and Echelon Avenue**

Conditions of Approval

Conditions of approval are unique provisions, beyond the requirements of law, the municipal code, or standard practices that are applied to a project by the City Council per Section 17.36.080 of the Zoning Code. Please note that if the design of your project or site conditions change, the conditions of approval may also change. If you have any questions regarding these requirements, please contact the City of Industry.

1. Electronic gates shall be equipped with a lock box approved by Los Angeles County Fire and Sheriff Departments, electric switch, and an alternative energy back-up system, such as a generator or battery, which would allow operation of the security gate(s) during an electrical power outage. Access through the gates shall be provided for both the Los Angeles County Fire and Sheriff Departments.

2. All perimeter walls and fencing, and maintenance of all common areas, shall be maintained in the future by either an Owner's Association or by bond.

3. The Applicant shall construct 8 foot tall screen walls to screen the loading docks on buildings A, B, C, E and F.

4. The Applicant shall provide one bicycle rack for each building that accommodates at least four bicycles.

5. Use permits (Business License) for each business shall be reviewed by City staff to determine if the use could cause noise issues that may impact the neighboring residential uses. City staff may limit the hours of operation depending on the type of business.

6. Roof-top address numbers that would only be visible from the air shall be installed to assist air borne patrols. The numbering should be a minimum of 3 feet and of a color that contrasts with the roof. Addresses shall include designators for individual tenant addresses, such as Unit A.

7. In case of emergency, use of any internal public address system/intercom offers a communication method. Upon request, the Los Angeles County Sheriff Department shall be provided access to the internal public address/intercom system.

8. Upon application for a Use Permit, the applicants shall provide a security plan and evacuation plan for review and comment by the Los Angeles County Sheriff Department, including product type and website information.

Environmental Mitigation Conditions

9. Applicant/Developer shall comply with all mitigation measures set forth in Initial Study/Mitigated Negative Declaration adopted for the Project.

10. (AES-1) Prior to the issuance of a building permit, the Applicant/Developer shall demonstrate to the satisfaction of the City that all exterior lighting is designed to minimize off-site glare. This may include without limitation, the use of shielded or recessed lighting fixtures.

11. (AQ-1) During construction activities, the Applicant and/or contractor shall ensure that all off-road diesel-fueled equipment (e.g., rubber-tired dozers, graders, scrapers, excavators, asphalt paving equipment, cranes, and tractors) is California Air Resources Board (CARB) Tier 3 Certified or better.

12. (CULT-1) If archaeological resources are encountered during project construction, all construction activities in the vicinity of the find must halt until an archaeologist certified by the Society of Professional Archaeologists examines the site, identifies the archaeological significance of the find, and recommends a course of action. Construction cannot resume until the site archaeologist states in writing that the proposed construction activities will not damage significant archaeological resources.

13. (CULT-2) If paleontological resources are encountered during project construction, all construction activities in the vicinity of the find must halt until a professional paleontologist examines the site, identifies the paleontological significance of the find, and recommends a course of action. Construction cannot resume until the site paleontologist states in writing that the proposed construction activities will not damage significant paleontological resources.

14. (HAZ-1) In the event that soil or groundwater contamination is encountered which could present a threat to human health or the environment during construction in the project area, construction activities in the immediate vicinity of the contamination must immediately cease. If contamination is encountered, a Risk Management Plan must be prepared and implemented that (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development and (2) describes measures to be taken to protect workers and the public from exposure to potential site hazards. Such measures could include a range of options including, without limitation, physical site controls

during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies must be notified (e.g., Los Angeles County Fire Department). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration (OSHA) requirements must be prepared and in place before commencement of work in any contaminated area.

15. (NOI-1) In order to reduce construction noise, the proposed concrete masonry block wall along the eastern, southern, and western boundaries of the project site shall be constructed before any other proposed construction activities commence. Or, if it is the case that this sequence of construction is impractical, a temporary noise barrier or enclosure shall be used along the eastern, southern, and western property lines to break the line of sight between the construction equipment and the adjacent residences. The temporary noise barrier shall have a sound transmission class (STC) of 35 or greater in or at least accordance with American Society for Testing and Materials Test Method E90, or at least 2 pounds per square foot, to ensure adequate transmission loss characteristics. In order to achieve this, the barrier may consist of steel tubular framing, welded joints, a layer of 18-ounce tarp, a 2-inch-thick fiberglass blanket, half-inch-thick weatherwood asphalt sheathing, and 7/16-inch sturdy board siding. In addition, to avoid objectionable noise reflections, the source side of the noise barrier shall be lined with an acoustic absorption material meeting a noise reduction coefficient rating of .70 or greater in accordance with American Society for Testing and Materials Test Method C423.

16. (NOI-2) The project improvement and building plans shall include the following requirements for construction activities:
    a) Construction shall be restricted to the hours of 7:00 am to 7:00 pm Monday through Saturday and shall be prohibited at any time on Sunday or a federal holiday.
    b) To ensure that other noise level standards for longer-duration activities (i.e., the L25 and L50 limits for activities occurring for 15 and 30 minutes per hour, respectively) are not breached by project trucking operations, nonessential on-site truck maneuvering will be restricted to a duration of no more than 10 minutes and on-site truck idling will be restricted to a duration of no more than 5 minutes, for a total duration of not more than 15 minutes for each truck trip.
    c) All maneuvering, including backing, will be conducted as far away from the eastern property line as practical.
    d) All internal combustion engine-driven equipment shall be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
    e) Stationary, noise-generating equipment (e.g., generators and compressors shall be located as far as possible from adjacent residential properties.
    f) If stationary, noise-generating equipment must be located near existing residential properties for extended periods of time, such equipment shall have temporary acoustical enclosures, blanketing, or barriers to reduce the noise emissions.
    g) The contractor shall use “quiet” air compressors and other stationary noise sources where such technology exists.

h) The contractor shall reduce nonessential idling of construction equipment to no more than 5 minutes.
i) Signs with the operations procedures shall be used to enforce this restriction.

17. (NOI-3) The project improvement and building plans will include the following requirements for construction activities:
    a) A minimum of a 10-foot-wide landscape buffer shall be constructed along the entire east property line in order to buffer the adjacent residential use from the project site.
    b) A 10-foot-high concrete masonry block wall shall be constructed along the easterly property line between the 10-foot-wide landscape buffer and the adjacent residential neighborhood. The wall shall continue along the entire length of the southern and western property lines at a height of 6 feet minimum.
    c) All truck dock loading areas shall positioned in such a way to be visually blocked from any residential use.
    d) All dock loading areas shall be positioned toward the center of the project site and away from the residential neighborhoods to the east and west in order to minimize truck and loading-related noise.
    e) All noise-making stationary, mechanical equipment shall be located toward the center of the project site. The three buildings nearest to the eastern boundary of the site shall be limited to placement of said noise-making stationary, mechanical equipment toward the west half of the building roof.

18. (TRF-1) *New Echelon Street/Loukelton Street:* The Applicant shall install a stop control on the northbound approach and construct the intersection with the following geometrics:
    - Northbound approach: One shared left-right turn lane
    - Southbound approach: Not applicable (N/A)
    - Eastbound approach: One shared through-right turn lane
    - Westbound approach: One shared left-through lane

<u>Code Requirements and Standards</u>

The following is a list of code requirements and standards deemed applicable to the proposed project. The list is intended to assist the Applicant by identifying requirements that must be satisfied during the various stages of project permitting, implementation, and operation. It should be noted that this list is in addition to any "conditions of approval" adopted by the City Council and noted above. Please note that if the design of your project or site conditions change, the list may also change. If you have any questions regarding these requirements, please contact the City of Industry.

DP 16-3 Conditions

1. The Development Plan approval expires twelve (12) months after the date of approval by the City Council if a building permit for each building and structure thereby approved has not been obtained within such period.

2. In conformance with Chapter 13.18 of the Municipal Code, the Applicant shall provide

landscaping and automatic irrigation plans to be approved by the Planning Department prior to the issuance of a building permit. Such plans shall be in substantial conformity with the approved development plan.

3. The Applicant shall construct adequate fire protection facilities to the satisfaction of the Los Angeles County Fire Department.

4. All exterior surfaces of buildings and appurtenant structures shall be painted in accordance with the approved development plan.

5. The Applicant/owner of the property must comply with the Subdivision Ordinance of the City of Industry.

6. The owner shall dedicate necessary landscape and utility easements along all street frontages as depicted on the approved development plan and tentative parcel map.

7. Depending upon the nature of the proposed use, the Applicant shall obtain an Industrial Waste Permit or receive Domestic Wastewater Clearance from the City Engineer for each parcel.

8. The Applicant shall provide off-street parking as shown on the approved development plan.

9. The Applicant shall construct curb, gutter, pave-out, necessary drainage facilities, and sidewalk along all street frontages in accordance with City standards and specifications as depicted on the approved development plan.

10. The owner shall dedicate necessary easements for storm drain, sewer, and street or highways as depicted on the approved development plan and tentative parcel map.

11. The Applicant shall supply sanitary sewer facilities to serve all buildings to the satisfaction of the City Engineer prior to the final approval of the development and hook-up of utilities. One sewer connection per parcel is permitted and, in the case of multiple units or buildings, all sewer lines must connect to a single lateral for each parcel.

12. The Applicant shall provide drainage and grading plans to be approved by the City Engineer prior to the issuance of a building permit. Such plans shall be in substantial conformity with the development plans.

13. In conformance with Chapter 13.16 of the Municipal Code and prior to the start of grading and construction, the Applicant will provide a Stormwater Pollution Prevention Plan (SWPPP), developed by a Qualified SWPPP Developer (QSD) and consistent with the current National Pollutant Discharge Elimination System (NPDES) construction general permit, along with proof that a Waste Discharger Identification (WDID) Number has been obtained, to the City Engineer for review and approval.

14. In conformance with Chapter 13.16 of the Municipal Code, the Applicant shall provide: 1) a SUSMP standard plan; and 2) an operations, maintenance, and monitoring plan to the City Engineer for review and approval. Upon approval, the Applicant shall construct storm drains and water quality devices according to the approved plans and the satisfaction of the City Engineer.

15. The Applicant shall provide building plans to be approved prior to the issuance of a building permit. Such plans shall be in substantial conformity with the development plans. Building plans shall be submitted to and approved by the Los Angeles County Engineer's Office - Building and Safety Division prior to the issuance of a building permit. All development shall be completed in substantial compliance with the approved development plan.

16. Street lights shall be designed and installed along all street frontages of the development to the satisfaction of the City Engineer.

17. Demolition and construction operations shall be limited to the hours (7:00 am to 7:00 pm) prescribed by the Los Angeles County Noise Ordinance (Los Angeles County Municipal Code, Section 12.08.390).

18. No outdoor storage of any personal property, building materials, or other property not permanently affixed to the Property is allowed.

19. Should archeological resources be uncovered during site preparation, grading, or excavation, work shall be stopped for a period not to exceed 14 days. The find shall be immediately evaluated for significance by a county-certified archaeologist. If the archaeological resources are found to be significant, the archaeologist shall perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit resources to the California State University Fullerton; and provide a comprehensive final report including appropriate records for the California Department of Parks and Recreation (Building, Structure, and Object Record; Archaeological Site Record; or District Record, as applicable).

20. Prior to Planning Final, all outstanding fees and invoices due to the City shall be paid in full. If requested by City Staff, the Applicant shall provide proof of payment.

Interpretation and Enforcement

1. The Applicant shall comply with all applicable code requirements, conditions of approval, laws, rules, and regulations applicable to the development of the project.

2. The Director of Development Services may interpret the implementation of each condition of approval and, with advanced notice, grant minor amendments to approved plans and/or conditions of approval based on changed circumstances, new information, and/or relevant factors as long as the spirit and intent of the approved condition of

approval is satisfied. Permits shall not be issued until the proposed minor amendment has been reviewed and approved for conformance with the intent of the approved condition of approval. If the proposed changes are substantial in nature, an amendment to the original entitlement may be required pursuant to the provisions of Industry Municipal Code.

Indemnification and Hold Harmless Condition

1. The Applicant and each of its heirs, successors and assigns, shall defend, indemnify and hold harmless the City of Industry and its agents, officers, and employees from any claim, action or proceedings, liability cost, including attorney's fees and costs against the City or its agents, officers or employees, to attack, set aside, void or annul any approval of the City, including but not limited to any approval granted by the City Council and Planning Commission concerning this project. The City shall promptly notify the Applicant of any claim, action or proceeding and should cooperate fully in the defense thereof.

2. The Applicant and property owner shall file an executed and acknowledged Acceptance of Terms and Conditions of the Development Plan within 10 days after the approval of said Development Plan.

TPM 74134 Conditions

1. The Tentative Parcel Map approval expires twenty-four (24) months from the date of approval by the City Council.
2. Approved drainage and landscaping plan will be required for all building sites to the satisfaction of the City Engineer and Planning Department.
3. Approved water, utility and sewer facilities will be required for all building sites to the satisfaction of the City Engineer prior to issuance of a grading permit.
4. Per Sections 66495-66497 of the Subdivision Map Act, the final monumentation for at least one exterior boundary line shall be completed prior to recordation. A bond shall be required in the amount as determined by the City Engineer
5. Final Parcel Map to substantially conform to Tentative Parcel Map.
6. Applicant shall dedicate necessary right of way by separate instrument along all street frontages after all improvements are accepted by the City.
7. Construct curb, gutter, pavement paveout, and necessary drainage facilities along all street frontages.
8. All utilities, including electrical and telephone, shall be installed underground and shall be concealed from view.
9. To comply with the City requirement of Proof of Title, the subdivider shall submit a Preliminary Subdivision Guarantee.
10. A Waiver Letter from each utility company shall be provided to the City, stating that the

subdivision is not in conflict with any utility easements prior to recordation of the final map.

11. Provide a tax clearance and/or bond to the Los Angeles County Engineer's Office prior to recordation of final Parcel Map.
12. Submittal of the final Parcel Map mylar shall include a digital copy being a Microstation File or AutoCad 14 or higher.
13. Street lights shall be designed and installed along all public streets shown on Parcel Map in accordance with Los Angeles County Department of Public Works designs standards at sole expense of subdivider. Three (3) years of advance energy fees shall also be paid by subdivider to the local utility and upon request, subdivider shall approve and execute any petition for the street lights to be annexed into a lighting maintenance district.

Interpretation and Enforcement

1. The Applicant shall comply with all applicable code requirements, conditions of approval, laws, rules, and regulations applicable to the development of the project.

2. The Director of Development Services may interpret the implementation of each condition of approval and, with advanced notice, grant minor amendments to approved plans and/or conditions of approval based on changed circumstances, new information, and/or relevant factors as long as the spirit and intent of the approved condition of approval is satisfied. Permits shall not be issued until the proposed minor amendment has been reviewed and approved for conformance with the intent of the approved condition of approval. If the proposed changes are substantial in nature, an amendment to the original entitlement may be required pursuant to the provisions of Industry Municipal Code.

Indemnification and Hold Harmless Condition

1. The Applicant and each of its heirs, successors and assigns, shall defend, indemnify and hold harmless the City of Industry and its agents, officers, and employees from any claim, action or proceedings, liability cost, including attorney's fees and costs against the City or its agents, officers or employees, to attack, set aside, void or annul any approval of the City, including but not limited to any approval granted by the City Council and Planning Commission concerning this project. The City shall promptly notify the Applicant of any claim, action or proceeding and should cooperate fully in the defense thereof.

2. The Applicant and property owner shall file an executed and acknowledged Acceptance of Terms and Conditions of the Tentative Parcel Map within 10 days after the granting of said Tentative Parcel Map.