Draft Initial Study and Mitigated Negative Declaration

Amar Industry Hills Development

15940-16016 Amar Road and 15940-16040 Kaplan Avenue
City of Industry

Lead Agency:

City of Industry
15625 East Stafford Street
City of Industry, CA 91744
(626) 333-2211

Prepared By:

CASC Engineering and Consulting, Inc.
1470 E. Cooley Dr.
Colton, CA 92324
(909) 783-0101

November 30, 2023

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APPENDICIES

Appendix A - Amar and Kaplan Avenue Air Quality and Greenhouse Gas Assessment. Urban Crossroads, Inc. August 25, 2023.

Appendix B - Amar and Kaplan Avenue Mobile Source Health Risk Assessment. Urban Crossroads, Inc. August 25, 2023.

Appendix C - Phase I Environmental Site Assessment Industry Hills Business Center 15940-16056 Amar Road and 15940-16063 Kaplan Avenue City of Industry, California. Ramboll US Consulting, Inc. May 2022.

Appendix D - Addendum to Phase I Environmental Site Assessment 16008 Amar Road City of Industry, California. Ramboll US Consulting, Inc. May 22, 2023.

Appendix E - Environmentally Regulated Materials Survey Report Limited Due Diligence Asbestos and Lead Survey 16008 Amar Road, City of Industry, California 91744. Citadel EHS. November 17, 2022.

Appendix F - Geotechnical Investigation Report for Industrial Development Site 16008 Amar Road City of Industry, California. Langan Engineering and Environmental Services, Inc. June 8, 2022.

Appendix G- Update to Geotechnical Engineering Report Amar Road Industrial Development City of Industry, California Langan Project No.: 700117702. Langan Engineering and Environmental Services, Inc. March 20, 2023.

Appendix H - Low Impact Development Plan (LID Plan) Hines Industry Hills 15940-16016 Amar Rd. and 15940-16040 Kaplan Ave. Accessor Parcel Number: 8250-001-011, 8250-012-017, City of Industry, CA 91744. Ware Malcomb. September 9, 2022, revised November 16, 2022.

Appendix I - Hydrology and Hydraulics Study for 15940-16016 Amar Rd. and 15940-16040 Kaplan Ave. Accessor Parcel Number: 8250-001-011, 8250-012-017, City of Industry, Los Angeles County, California 91744. Ware Malcomb. November 16, 2022.

Appendix J - Preliminary Assessment of Environmental Noise, Amar Road Development, City of Industry, CA CEQA Noise Report. Veneklasen Associates, Inc. August 16, 2023.

Appendix K - Vehicle Miles of Travel (VMT) Assessment for 15940-16016 Amar Blvd, 15940,15941, 16000, 16023 & 16040 Kaplan Ave. CNC Engineering. April 5, 2023.

FIGURES

TABLES

CHAPTER ONE – INTRODUCTION

1.1 Purpose and Authority

This Initial Study/Mitigated Negative Declaration (“IS/MND”) has been prepared in accordance with the California Environmental Quality Act (California Public Resources Code §§ 21000 *et seq.*), and the CEQA guidelines (California Code of Regulations, Title 14, § 15000 *et seq.*), (“CEQA”) to evaluate the potential environmental impacts associated with the implementation of the proposed Amar Industry Hills Development (“Project”) located at 15940-16016 Amar Road and 15940-16040 Kaplan Avenue, in the City of Industry, California. This IS/MND is intended to serve as an informational document for the public agency decision makers and the public regarding the Project.

1.2 Documents Incorporated by Reference

As permitted by Section 15150 of the CEQA Guidelines, this IS/MND references several technical studies and analyses. Information from the documents incorporated by reference is briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the IS/MND has also been described. The documents and other sources used in the preparation of this IS/MND include, but are not limited to:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- City of Industry General Plan Update Final Environmental Impact Report (June 12, 2014)
- City of Industry Municipal Code Chapter 17.16 “Industrial Zone”
- Los Angeles County General Plan (updated July 2022)
- Los Angeles County GIS Data Portal and Interactive Map (GIS-NET)
- South Coast Air Quality Management District (SCAQMD)
- 2016 Air Quality Management Plan (AQMP) (adopted March 3, 2017)

1.3 Documents Prepared for the Project

As part of the CEQA review process, the lead agency determined that the following stand-alone technical studies be prepared for the Project, and they are appended to the IS/MND as follows:

- Amar and Kaplan Avenue Air Quality and Greenhouse Gas Assessment (Appendix A)
- Amar and Kaplan Avenue Health Risk Assessment (Appendix B)
- Phase I Environmental Site Assessment Industry Hills Business Center 15940-16056 Amar Road and 15940-16063 Kaplan Avenue (Appendix C)
- Addendum to Phase I Environmental Site Assessment 16008 Amar Road (Appendix D)
- Environmentally Regulated Materials Survey Report Limited Due Diligence Asbestos and Lead Survey 16008 Amar Road (Appendix E)
- Geotechnical Investigation Report for Industrial Development Site 16008 Amar Road (Appendix F)
- Update to Geotechnical Engineering Report Amar Road Industrial Development (Appendix G)
- Low Impact Development Plan (LID Plan) Hines Industry Hills 15940-16016 Amar Rd. and 15940-16040 Kaplan Ave (Appendix H)
- Hydrology and Hydraulics Study for 15940-16016 Amar Rd. and 15940-16040 Kaplan Ave (Appendix I)

- Preliminary Assessment of Environmental Noise Amar Road Development, City of Industry, CA CEQA Noise Report (Appendix J)
- Vehicle Miles of Travel (VMT) Assessment for 15940-16016 Amar Blvd, 15940,15941, 16000, 16023 & 16040 Kaplan Ave (Appendix K)

CHAPTER TWO – ENVIRONMENTAL CHECKLIST

2.1 Project Summary

1. Project Title:
Amar Industry Hills Development

2. Lead Agency Name and Address:
City of Industry
15625 East Stafford Street
City of Industry, CA 91744

3. Contact Person and Phone Number:
Dina Lomeli, Contract Senior Planner
(626) 333-2211 ext. 115
dlomeli@cityofindustry.org

4. Project Location:
15940-16016 Amar Road and 15940-16040 Kaplan Avenue
City of Industry, CA 91744

5. Project Applicant's Name and Address:
Amar Industry Hills, LLC
11845 W. Olympic Blvd, Suite 1035 W
Los Angeles, CA 90064

6. General Plan Designation:
Employment APN: 8250-001-013, -14, -15, -16, -17
Commercial APN: 8250-001-011, -12

7. Zoning Designation:
Industrial (M) APN: 8250-001-013, -14, -15, -16, -17
Commercial (C) APN: 8250-001-011, -12

8. Project Description:

Amar Industry Hills, LLC ("Applicant"), submitted to the City of Industry ("City") applications for a General Plan Amendment ("GPA"), Zone Change ("ZC"), Parcel Map, and Development Plan ("DP") for the construction of the proposed Amar Industry Hills Development on approximately 10.09 acres of non-vacant land located at 15940-16016 Amar Road and 15940-16040 Kaplan Avenue ("Project") in the City. (Refer to *Figure 2-1 Regional Vicinity*) The Project area consists of seven (7) parcels: Accessor's Parcel Numbers (APNs) 8250-001-011, 8250-001-012, 8250-001-013, 8250-001-014, 8250-001-015, 8250-001-016, 8250-001-017. (Refer to *Figure 2-2 Project Boundary* and *Figure 2-3 Accessor Parcel Numbers*; Table 1 - Parcel Summary, provides a parcel summary that includes the APN, parcel address, parcel size, and proposed applications.)

Table 1 - Parcel Summary

Parcel	Assessor Parcel Number (APN)	Parcel Address	Acres	Proposed Applications
1	8250-001-011	15940 Amar Road	1.27	GPA; ZC; Parcel Map; DP
2	8250-001-012	16016 Amar Road	2.39	GPA; ZC; Parcel Map; DP
3	8250-001-013	16023 Kaplan Avenue	1.43	Parcel Map; DP
4	8250-001-014	15941 Kaplan Avenue	1.54	Parcel Map; DP
5	8250-001-015	15940 Kaplan Avenue	0.89	Parcel Map; DP
6	8250-001-016	16000 Kaplan Avenue	0.93	Parcel Map; DP
7	8250-001-017	16040 Kaplan Avenue	0.97	Parcel Map; DP

The City's General Plan land use designation for the Project site is Commercial for APNs 8250-001-011 and 8250-001-012, and Employment for the remaining five (5) parcels. (Refer to *Figure 2-4 General Plan Land Use*) The zoning designation for the Project site is Commercial (C) for APNs 8250-001-011 and 8250-001-012, and Industrial (M) for the remaining five (5) parcels. (Refer to *Figure 2-5 Zoning)*. The Project site is located within the northern portion of the City and is surrounded by industrial uses to the west in the City, commercial and single-family residential uses to the north, and single-family residential uses to the east in Valinda (unincorporated Los Angeles County). The site is bordered by Amar Road to the north, N. Echelon Avenue to the east, Puente Creek Channel and adjacent industrial uses to the south, and an existing public storage facility to the west.

The following applications for the Project are proposed:

- A General Plan Amendment ("GPA") to change the General Plan land use designation from Commercial to Employment for APNs 8250-001-011 and 8250-001-012.
- A Zone Change ("ZC") to change the zone classification from Commercial (C) to Industrial (M) for APNs 8250-001-011 and 8250-001-012.
- A Parcel Map Application for Tentative Parcel Map No. 083978, which involves merging the seven (7) existing parcels into a single 10.09-acre parcel and will result in the abandonment of the right-of-way and easements for Kaplan Avenue. (Refer to *Figure 2-6 Tentative Parcel Map No. 083978).*
- A Development Plan ("DP") for the proposed construction of a 205,460 square-foot tilt-up concrete industrial building and associated improvements.

The proposed building consists of a 199,460 square-foot footprint with a 6,000 square-foot mezzanine, resulting in a total floor area of 205,460 square feet. (Refer to *Figure 2-7 Site Plan)*. The building includes 193,460 square feet for warehouse space and 6,000 square feet for office space on the first floor, and 6,000 square feet of office space on the second floor. The proposed building is expected to operate as an industrial warehouse 24 hours a day, seven (7) days a week. Project operation is estimated to include a total of 464 employees with approximately three (3) shifts per day, and an estimated one hundred (100) employees per shift. The Project site currently consists of ten (10) commercial and industrial buildings, totaling 164,259 square feet. The existing on-site buildings, parking lots, and associated improvements will be demolished as a part of this Project. Table 2 – Existing Building Summary, provides a building summary that includes the location, square footage, height, existing use, and year built for each existing building. In addition to the proposed demolition, the Project requires the abandonment of the right-of-way and easements for Kaplan Avenue.

Table 2 - Existing Building Summary

Building	Location	Square Footage	Height	Existing Use	Year Built
1	15940 to 16012 Amar Rd	18,280	16.3’	Commercial	1979
2	15940 to 16012 Amar Rd	30,008	16.3’	Commercial	1979
3	15959 to 15941 Kaplan Ave	13,065	15.0’	Light Manufacturing	1979
4	16001 to 16021 Kaplan Ave	14,378	15.0’	Light Manufacturing	1979
5	16023 to 16043 Kaplan Ave	13,728	15.0’	Light Manufacturing	1979
6	16045 to 16065 Kaplan Ave	13,647	15.0’	Light Manufacturing	1979
7	15940 to 15946 Kaplan Ave	16,715	19.0’	Light Manufacturing	1979
8	16000 to 16010 Kaplan Ave	10,210	17.0’	Light Manufacturing	1987
9	16020 to 16032 Kaplan Ave	10,210	17.4’	Light Manufacturing	1987
10	16040 to 16050 Kaplan Ave	10,213	17.5’	Light Manufacturing	1987

The Project is accessible via a fifty-foot-ten-inch (50’-10”) driveway and a forty-two-foot (42’) driveway off Amar Road, and a thirty-five-foot (35’) driveway off Echelon Avenue. Section 17.36.060.K. of the City’s Municipal Code (“Code”) specifies that “the number of parking spaces which shall be provided is based upon the square footage of the building which they are intended to serve and the use to which that building is to be put.” Based on the total building area of 205,460 square feet, the Project requires 255 parking stalls. The Project includes 203 standard parking stalls and 52 compact parking stalls, for a total of 255 parking stalls. Additionally, the Project includes 34 trailer parking stalls, 24 dock-high doors for truck docking, and two (2) additional doors at grade. Thus, the proposed parking for the Project complies with the City’s Municipal Code. Pursuant to Section 17.36.060.Q. of the City’s Code, 12 percent of the subject parcel must be landscaped, which is 53,458 square feet for the Project site. The Project includes

53,458 square feet of total landscaped area (12% of the Property), and therefore complies with the City's Municipal Code.

9. Surrounding Land Uses and Setting:

The Project site has a General Plan land use designation of Employment (APNs: 8250-001-011, -012) and Commercial (APNs: 8250-001-013, -14, -15, -16, -17) and is zoned Industrial (M) and Commercial (C). Immediate surroundings to the south and west have a land use designation of Employment and are zoned as Industrial (M). Uses north and west of the site are located within Valinda (unincorporated Los Angeles County) and consist of single-family residences.

North: The Project site is bounded to the north by Valinda (unincorporated Los Angeles County), zoned C-2-BE (Neighborhood Commercial) with a General Commercial (CG) land use designation. Uses include single-family residences and commercial businesses.

East: The Project site is bounded to the east by Valinda (unincorporated Los Angeles County), zoned R-1-6000 (Single Family Residence) and A-1-6000 (Light Agriculture) and designated Residential 9 (H9). Uses to the east consist of single-family residences.

South: The Project site is bounded to the south by Industrial (M) zoning, and designated Employment land use within the City of Industry.

West: The Project site is bounded to the west by Industrial (M) zoning, and designated Employment land use within the City of Industry.

10. Other Public Agencies Whose Approval is Required

(e.g., permits, financing approval, or participation agreement):

- Los Angeles Regional Water Quality Control Board (NPDES permit; construction storm water run-off permits, Storm Drain MS4 Permit)
- Los Angeles County Fire Department (for emergency site access review)
- Los Angeles County Building Department (site plan review)
- Los Angeles County Public Works Department

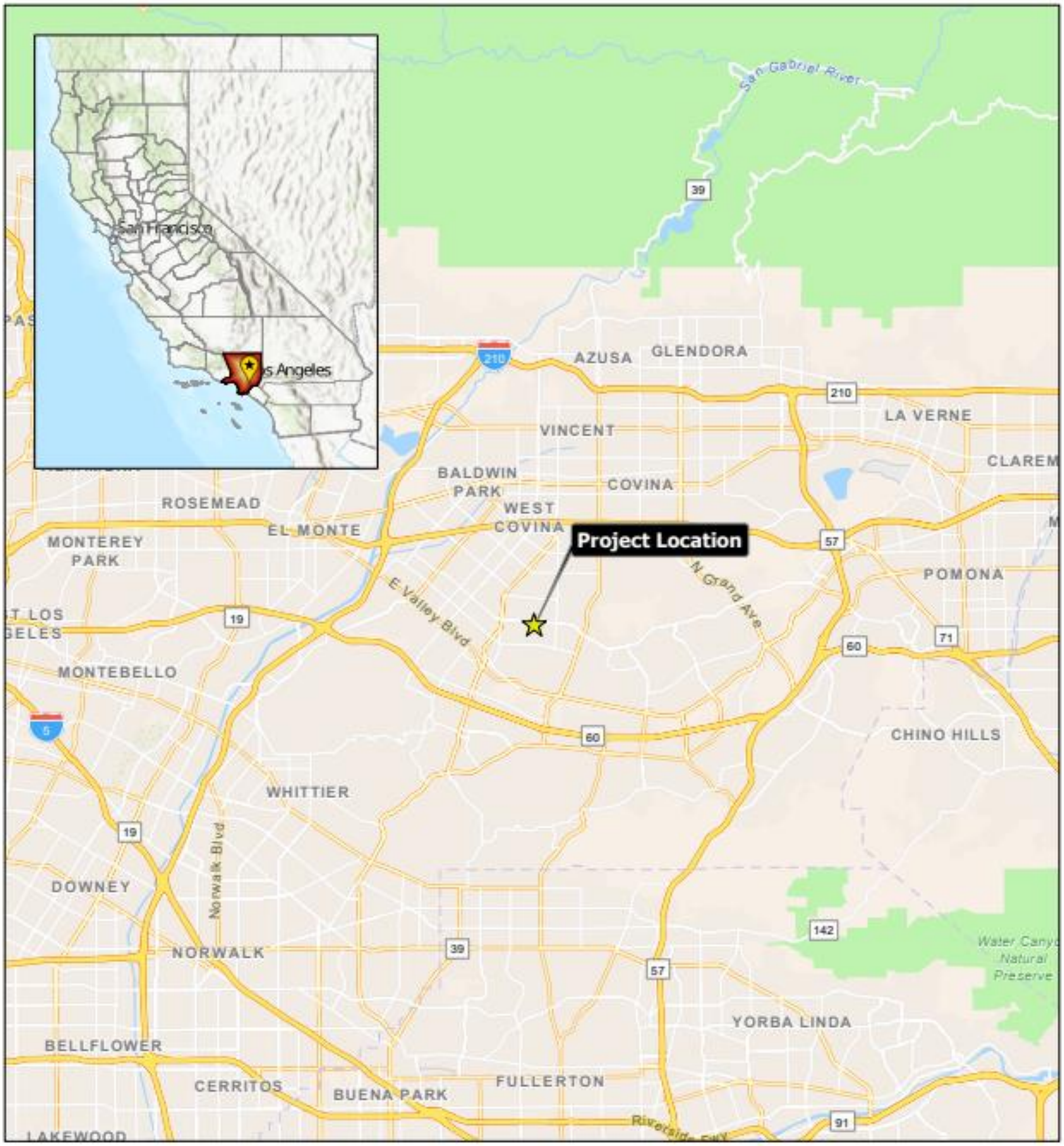
11. California Native American Tribes:

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

The City, as Lead Agency, commenced the AB 52 process by transmitting letters of notification on January 5, 2023, to three (3) tribes that are traditionally and/or culturally affiliated with the Project area or have specifically requested notice for all projects within the City. The tribes included in the notification were the Gabrieleño Band of Mission Indians – Kizh Nation, Gabrielino Tongva Tribe, and Soboba Band of Luiseno Indians.

The City received a request for consultation from the Gabrieleño Band of Mission Indians – Kizh Nation. Consultation was conducted on March 14, 2023. The Gabrieleño Band of Mission Indians – Kizh Nation provided mitigation measures on March 16, 2023. The mitigation measures are incorporated in *Section V. Cultural Resources* and *Section XVIII. Tribal Cultural Resources* of this Initial Study/Mitigated Negative Declaration (IS/MND). The City therefore complied with the requirements of AB 52.



CASC Engineering and Consulting

N

0 2.25 4.5 9 Miles

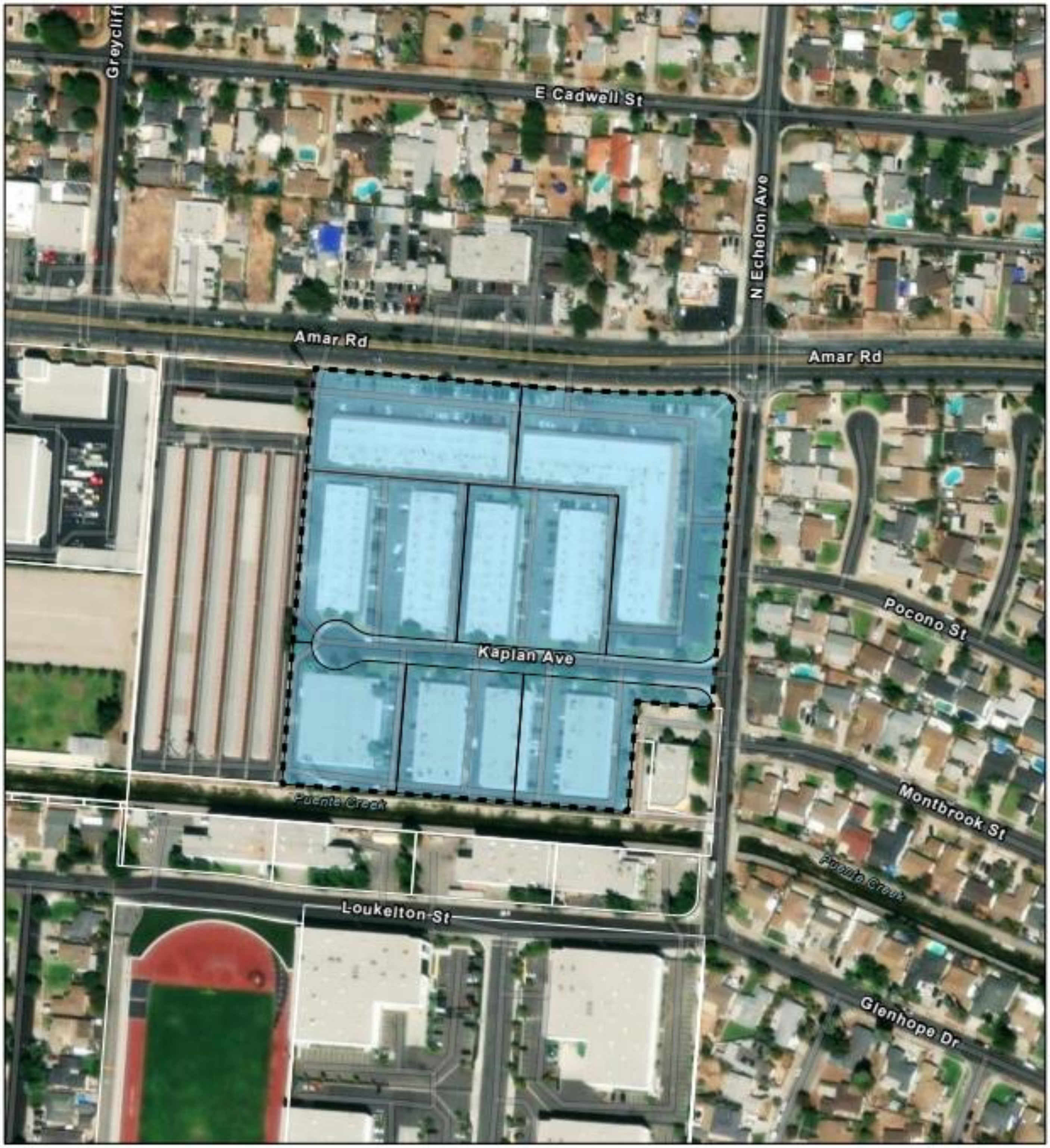
Figure 2-1 Regional Vicinity

Amar Industry Hills Development

15940-16016 Amar Rd. & 15940-16040 Kaplan Ave.
City of Industry, County of Los Angeles

APN: 8250-001-011, -12, -13, -14, -15, -16, -17

City of West Covina, County of Los Angeles, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, Esri, Garmin, FAO, NOAA, USGS, EPA, Esri, USGS



CASC
Engineering and Consulting

N

0 125 250 500
US Feet

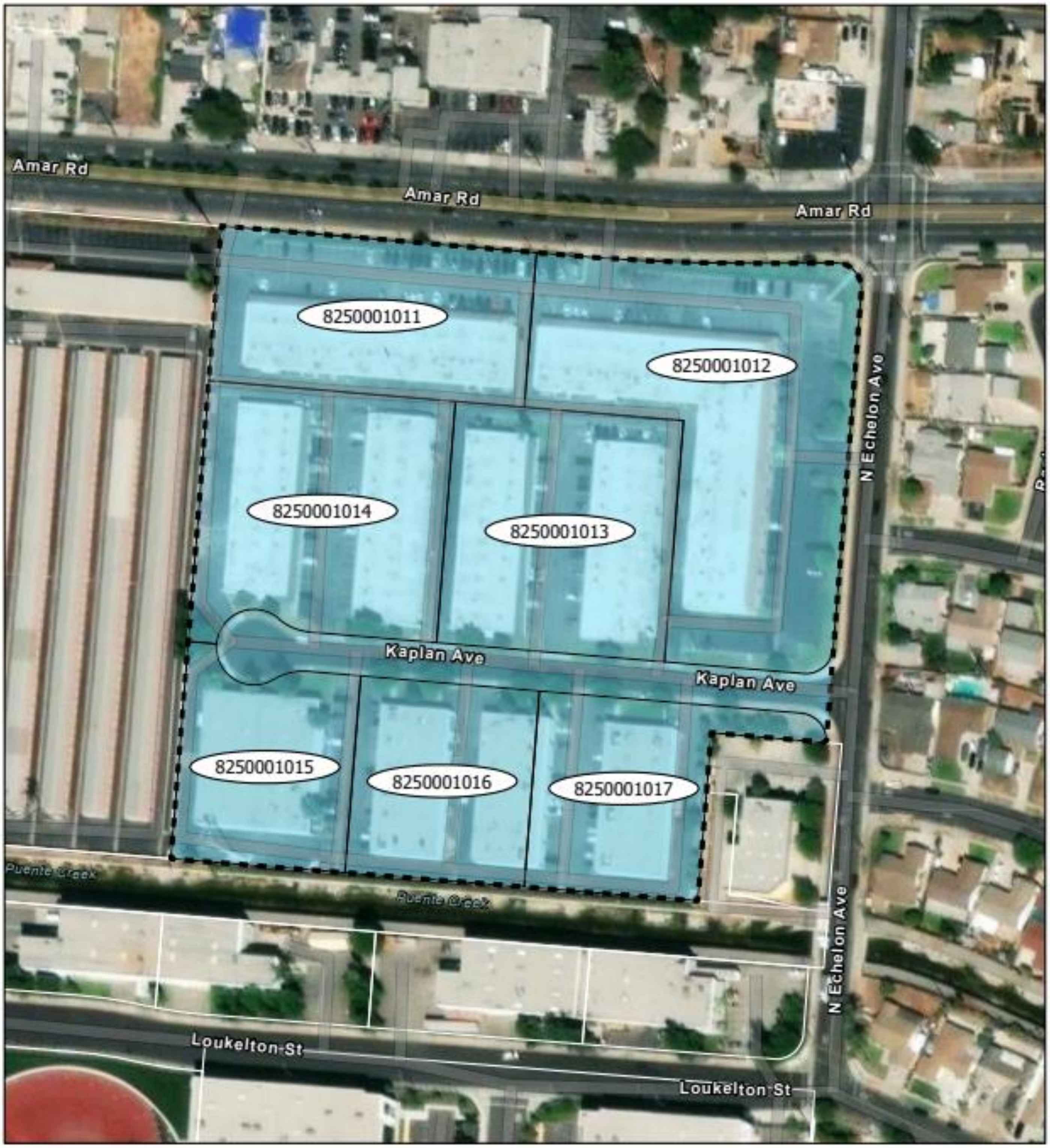
Figure 2-2 Project Boundary

Amar Industry Hills Development

15940-16016 Amar Rd. & 15940-16040 Kaplan Ave.
City of Industry, County of Los Angeles

Maxar, Microsoft, Esri Community Maps Contributors, City of West Covina, County of Los Angeles, California State Parks, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA

APN: 8250-001-011, -12, -13, -14, -15, -16, -17



CASC Engineering and Consulting

N

0 90 180 360 US Feet

Figure 2-3 Assessor's Parcel Number

Amar Industry Hills Development

15940-16016 Amar Rd. & 15940-16040 Kaplan Ave.
City of Industry, County of Los Angeles

Maxar, Microsoft, Esri Community Maps Contributors, City of West Covina, County of Los Angeles, California State Parks, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA

APN: 8250-001-011, -12, -13, -14, -15, -16, -17

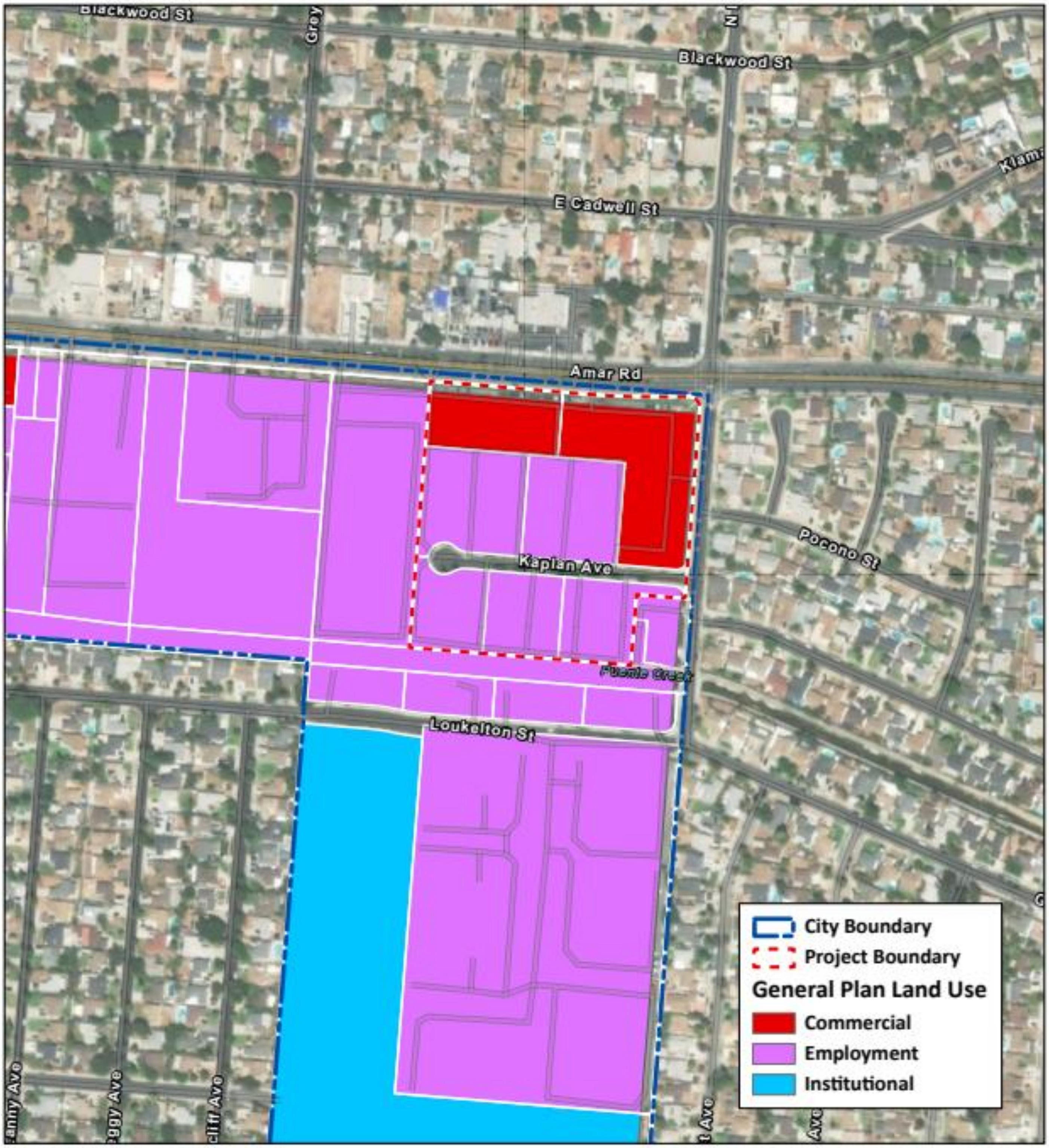


Figure 2-4 General Plan Land Use

Amar Industry Hills Development

0 250 500 1,000

US Feet

15940-16016 Amar Rd. & 15940-16040 Kaplan Ave.
City of Industry, County of Los Angeles

APN: 8250-001-011, -12, -13, -14, -15, -16, -17

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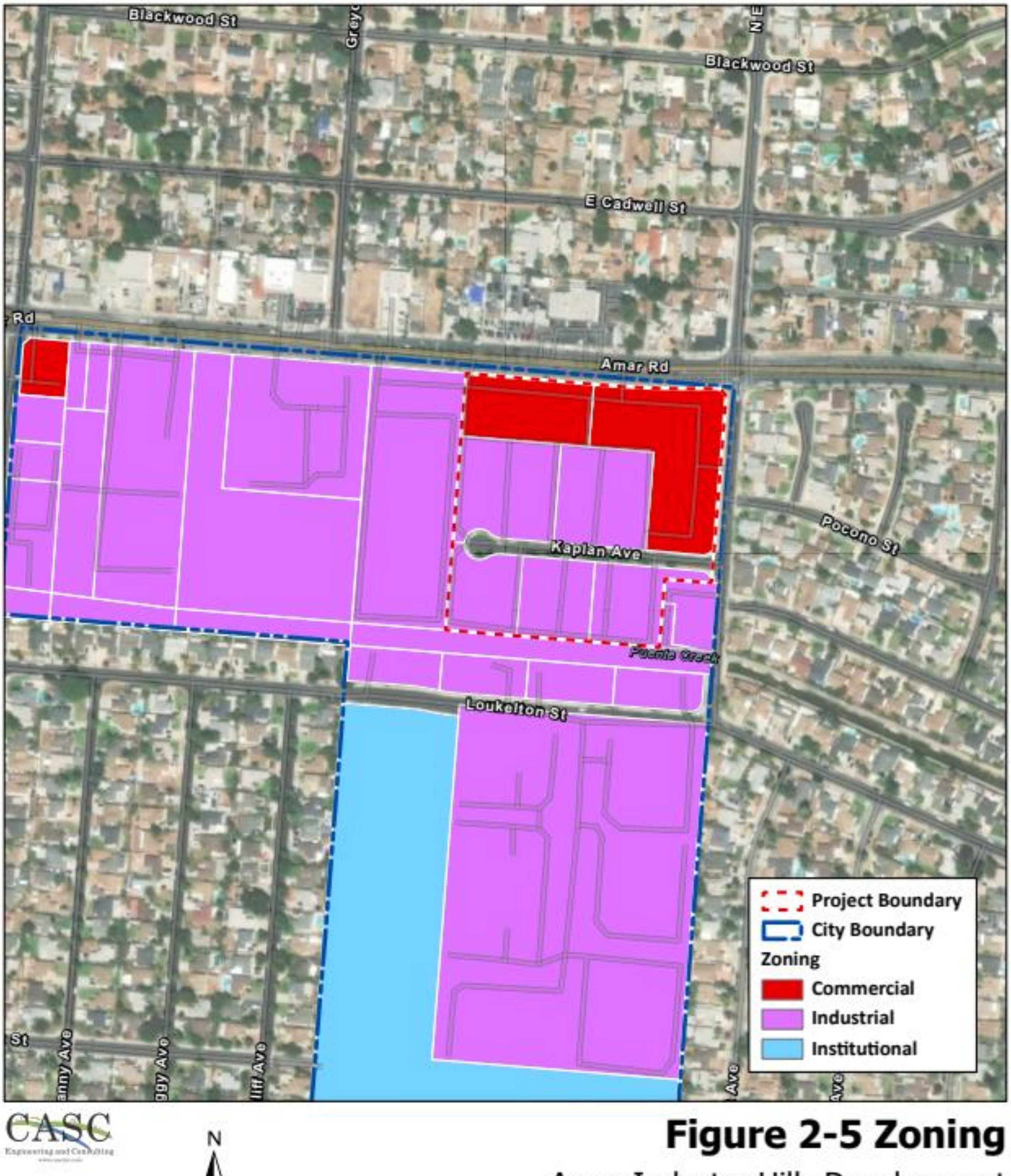

CASC Engineering and Consulting

Figure 2-5 Zoning

Amar Industry Hills Development

15940-16016 Amar Rd. & 15940-16040 Kaplan Ave.
City of Industry, County of Los Angeles

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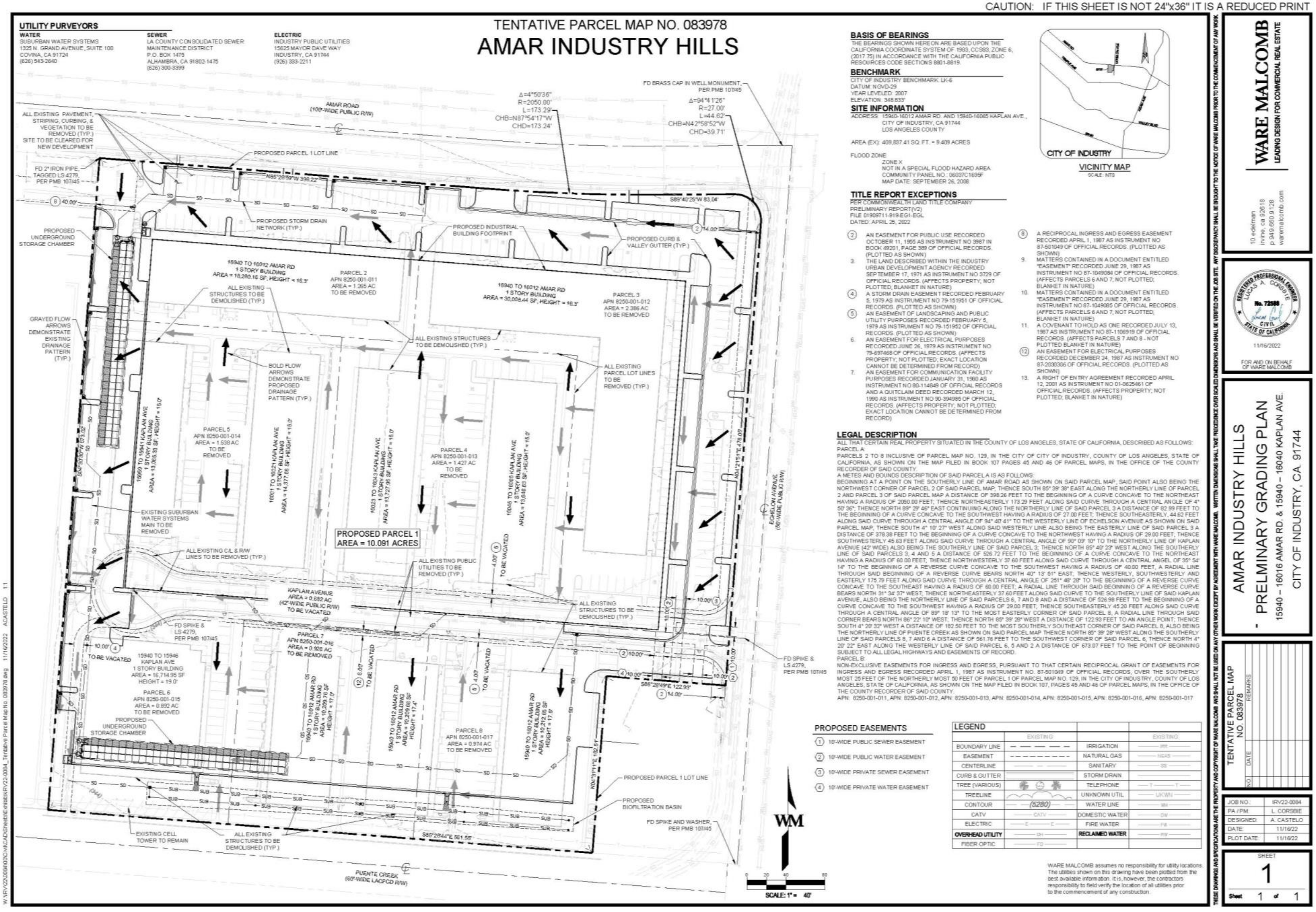
APN: 8250-001-011, -12, -13, -14, -15, -16, -17

Figure 2-6: Tentative Parcel Map No. 083978



CAUTION: IF THIS SHEET IS NOT 24"x36" IT IS A REDUCED PRINT

TENTATIVE PARCEL MAP NO. 083978

AMAR INDUSTRY HILLS

UTILITY PURVEYORS

WATER
SUBURBAN WATER SYSTEMS
1325 N. GRAND AVENUE, SUITE 100
COVINA, CA 91724
(626) 543-2640

SEWER
LA COUNTY CONSOLIDATED SEWER MAINTENANCE DISTRICT
P.O. BOX 1475
ALHAMBRA, CA 91802-1475
(626) 300-3399

ELECTRIC
INDUSTRY PUBLIC UTILITIES
15625 MAYOR DAVE WAY
INDUSTRY, CA 91744
(926) 333-2211

BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 6, (2017.75) IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8801-8819.

BENCHMARK

CITY OF INDUSTRY BENCHMARK: LK-6
DATUM: NGVD-29
YEAR LEVELED: 2007
ELEVATION: 348.833'

SITE INFORMATION

ADDRESS: 15940-16012 AMAR RD. AND 15940-16065 KAPLAN AVE.,
CITY OF INDUSTRY, CA 91744
LOS ANGELES COUNTY

AREA (EX): 409,837.41 SQ. FT. = 9.409 ACRES

FLOOD ZONE:
ZONE X
NOT IN A SPECIAL FLOOD HAZARD AREA
COMMUNITY PANEL NO.: 06037C1695F
MAP DATE: SEPTEMBER 26, 2008

VICINITY MAP
SCALE: NTS

TITLE REPORT EXCEPTIONS

PER COMMONWEALTH LAND TITLE COMPANY
PRELIMINARY REPORT(V2)
FILE 01909711-919-EG1-EGL
DATED: APRIL 25, 2022

② AN EASEMENT FOR PUBLIC USE RECORDED OCTOBER 11, 1965 AS INSTRUMENT NO 3987 IN BOOK 49201, PAGE 389 OF OFFICIAL RECORDS. (PLOTTED AS SHOWN)
3. THE LAND DESCRIBED WITHIN THE INDUSTRY URBAN DEVELOPMENT AGENCY RECORDED SEPTEMBER 17, 1971 AS INSTRUMENT NO 3729 OF OFFICIAL RECORDS. (AFFECTS PROPERTY; NOT PLOTTED; BLANKET IN NATURE)
④ A STORM DRAIN EASEMENT RECORDED FEBRUARY 5, 1979 AS INSTRUMENT NO 79-151951 OF OFFICIAL RECORDS. (PLOTTED AS SHOWN)
⑤ AN EASEMENT OF LANDSCAPING AND PUBLIC UTILITY PURPOSES RECORDED FEBRUARY 5, 1979 AS INSTRUMENT NO 79-151952 OF OFFICIAL RECORDS. (PLOTTED AS SHOWN)
6. AN EASEMENT FOR ELECTRICAL PURPOSES RECORDED JUNE 26, 1979 AS INSTRUMENT NO 79-697468 OF OFFICIAL RECORDS. (AFFECTS PROPERTY; NOT PLOTTED; EXACT LOCATION CANNOT BE DETERMINED FROM RECORD)
7. AN EASEMENT FOR COMMUNICATION FACILITY PURPOSES RECORDED JANUARY 31, 1980 AS INSTRUMENT NO 80-114849 OF OFFICIAL RECORDS AND A QUITCLAIM DEED RECORDED MARCH 12, 1990 AS INSTRUMENT NO 90-394985 OF OFFICIAL RECORDS. (AFFECTS PROPERTY; NOT PLOTTED; EXACT LOCATION CANNOT BE DETERMINED FROM RECORD)
⑧ A RECIPROCAL INGRESS AND EGRESS EASEMENT RECORDED APRIL 1, 1987 AS INSTRUMENT NO 87-501049 OF OFFICIAL RECORDS. (PLOTTED AS SHOWN)
9. MATTERS CONTAINED IN A DOCUMENT ENTITLED "EASEMENT" RECORDED JUNE 29, 1987 AS INSTRUMENT NO 87-1049084 OF OFFICIAL RECORDS. (AFFECTS PARCELS 6 AND 7; NOT PLOTTED; BLANKET IN NATURE)
10. MATTERS CONTAINED IN A DOCUMENT ENTITLED "EASEMENT" RECORDED JUNE 29, 1987 AS INSTRUMENT NO 87-1049085 OF OFFICIAL RECORDS. (AFFECTS PARCELS 6 AND 7; NOT PLOTTED; BLANKET IN NATURE)
11. A COVENANT TO HOLD AS ONE RECORDED JULY 13, 1987 AS INSTRUMENT NO 87-1106919 OF OFFICIAL RECORDS. (AFFECTS PARCELS 7 AND 8 - NOT PLOTTED BLANKET IN NATURE)
⑫ AN EASEMENT FOR ELECTRICAL PURPOSES RECORDED DECEMBER 24, 1987 AS INSTRUMENT NO 87-2030306 OF OFFICIAL RECORDS. (PLOTTED AS SHOWN)
13. A RIGHT OF ENTRY AGREEMENT RECORDED APRIL 12, 2001 AS INSTRUMENT NO 01-0625461 OF OFFICIAL RECORDS. (AFFECTS PROPERTY; NOT PLOTTED; BLANKET IN NATURE)

LEGAL DESCRIPTION

ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL A:

PARCELS 2 TO 8 INCLUSIVE OF PARCEL MAP NO. 129, IN THE CITY OF CITY OF INDUSTRY, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON THE MAP FILED IN BOOK 107 PAGES 45 AND 46 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

A METES AND BOUNDS DESCRIPTION OF SAID PARCEL A IS AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHERLY LINE OF AMAR ROAD AS SHOWN ON SAID PARCEL MAP, SAID POINT ALSO BEING THE NORTHWEST CORNER OF PARCEL 2 OF SAID PARCEL MAP; THENCE SOUTH 85° 39' 38" EAST ALONG THE NORTHERLY LINE OF PARCEL 2 AND PARCEL 3 OF SAID PARCEL MAP A DISTANCE OF 398.26 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 2050.00 FEET; THENCE NORTHEASTERLY 173.29 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 4° 50' 36"; THENCE NORTH 89° 29' 46" EAST CONTINUING ALONG THE NORTHERLY LINE OF SAID PARCEL 3 A DISTANCE OF 82.99 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 27.00 FEET; THENCE SOUTHEASTERLY, 44.62 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 94° 40' 41" TO THE WESTERLY LINE OF ECHELSON AVENUE AS SHOWN ON SAID PARCEL MAP; THENCE SOUTH 4° 10' 27" WEST ALONG SAID WESTERLY LINE ALSO BEING THE EASTERLY LINE OF SAID PARCEL 3 A DISTANCE OF 378.38 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 29.00 FEET; THENCE SOUTHWESTERLY 45.63 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 90° 09' 10" TO THE NORTHERLY LINE OF KAPLAN AVENUE (42' WIDE) ALSO BEING THE SOUTHERLY LINE OF SAID PARCEL 3; THENCE NORTH 85° 40' 23" WEST ALONG THE SOUTHERLY LINE OF SAID PARCELS 3, 4 AND 5 A DISTANCE OF 526.72 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 60.00 FEET; THENCE NORTHWESTERLY 37.60 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGEL OF 35° 54' 14" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 40.00 FEET, A RADIAL LINE THROUGH SAID BEGINNING OF A REVERSE CURVE BEARS NORTH 40° 13' 51" EAST; THENCE WESTERLY, SOUTHWESTERLY AND EASTERLY 175.79 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 251° 48' 28" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 60.00 FEET; A RADIAL LINE THROUGH SAID BEGINNING OF A REVERSE CURVE BEARS NORTH 31° 34' 37" WEST; THENCE NORTHEASTERLY 37.60 FEET ALONG SAID CURVE TO THE SOUTHERLY LINE OF SAID KAPLAN AVENUE, ALSO BEING THE NORTHERLY LINE OF SAID PARCELS 6, 7 AND 8 AND A DISTANCE OF 526.98 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 29.00 FEET; THENCE SOUTHEASTERLY 45.20 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 89° 18' 13" TO THE MOST EASTERLY CORNER OF SAID PARCEL 8, A RADIAL LINE THROUGH SAID CORNER BEARS NORTH 86° 22' 10" WEST; THENCE NORTH 85° 39' 28" WEST A DISTANCE OF 122.93 FEET TO AN ANGLE POINT; THENCE SOUTH 4° 20' 32" WEST A DISTANCE OF 182.50 FEET TO THE MOST SOUTHERLY SOUTHEAST CORNER OF SAID PARCEL 8, ALSO BEING THE NORTHERLY LINE OF PUENTE CREEK AS SHOWN ON SAID PARCEL MAP THENCE NORTH 85° 39' 28" WEST ALONG THE SOUTHERLY LINE OF SAID PARCELS 8, 7 AND 6 A DISTANCE OF 561.76 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL 6; THENCE NORTH 4° 20' 22" EAST ALONG THE WESTERLY LINE OF SAID PARCEL 6, 5 AND 2 A DISTANCE OF 673.07 FEET TO THE POINT OF BEGINNING SUBJECT TO ALL LEGAL HIGHWAYS AND EASEMENTS OF RECORD.

PARCEL B:

NON-EXCLUSIVE EASEMENTS FOR INGRESS AND EGRESS, PURSUANT TO THAT CERTAIN RECIPROCAL GRANT OF EASEMENTS FOR INGRESS AND EGRESS RECORDED APRIL 1, 1987 AS INSTRUMENT NO. 87-501049 OF OFFICIAL RECORDS, OVER THE SOUTHERLY MOST 25 FEET OF THE NORTHERLY MOST 50 FEET OF PARCEL 1 OF PARCEL MAP NO. 129, IN THE CITY OF INDUSTRY, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON THE MAP FILED IN BOOK 107, PAGES 45 AND 46 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN: 8250-001-011, APN: 8250-001-012, APN: 8250-001-013, APN: 8250-001-014, APN: 8250-001-015, APN: 8250-001-016, APN: 8250-001-017

PROPOSED EASEMENTS

① 10'-WIDE PUBLIC SEWER EASEMENT
② 10'-WIDE PUBLIC WATER EASEMENT
③ 10'-WIDE PRIVATE SEWER EASEMENT
④ 10'-WIDE PRIVATE WATER EASEMENT

LEGEND			
	EXISTING		EXISTING
BOUNDARY LINE	— — — — —	IRRIGATION	— IRR —
EASEMENT	- - - - - - - - - -	NATURAL GAS	— NGAS —
CENTERLINE	—— — ——	SANITARY	— SS —
CURB & GUTTER	═══	STORM DRAIN	——
TREE (VARIOUS)		TELEPHONE	— T — T —
TREELINE		UNKNOWN UTIL	— UKWN —
CONTOUR	— (5280) —	WATER LINE	— WM —
CATV	— CATV —	DOMESTIC WATER	— DW —
ELECTRIC	— E — E —	FIRE WATER	— FW —
OVERHEAD UTILITY	— OH —	**RECLAIMED WATER**	— RW —
FIBER OPTIC	— FO —		

WARE MALCOMB assumes no responsibility for utility locations. The utilities shown on this drawing have been plotted from the best available information. It is, however, the contractors responsibility to field verify the location of all utilities prior to the commencement of any construction.

SCALE: 1" = 40'

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LUCAS A. CORSBIE
No. 72588
CIVIL
11/16/2022
FOR AND ON BEHALF OF WARE MALCOMB

AMAR INDUSTRY HILLS
- PRELMINARY GRADING PLAN
15940 – 16016 AMAR RD. & 15940 – 16040 KAPLAN AVE.
CITY OF INDUSTRY, CA. 91744

TENTATIVE PARCEL MAP
NO. 083978

NO	DATE	REMARKS

JOB NO.:	IRV22-0084
PA / PM:	L. CORSBIE
DESIGNED:	A. CASTELO
DATE:	11/16/22
PLOT DATE:	11/16/22

SHEET
1
Sheet 1 of 1

Figure 2-7: Site Plan

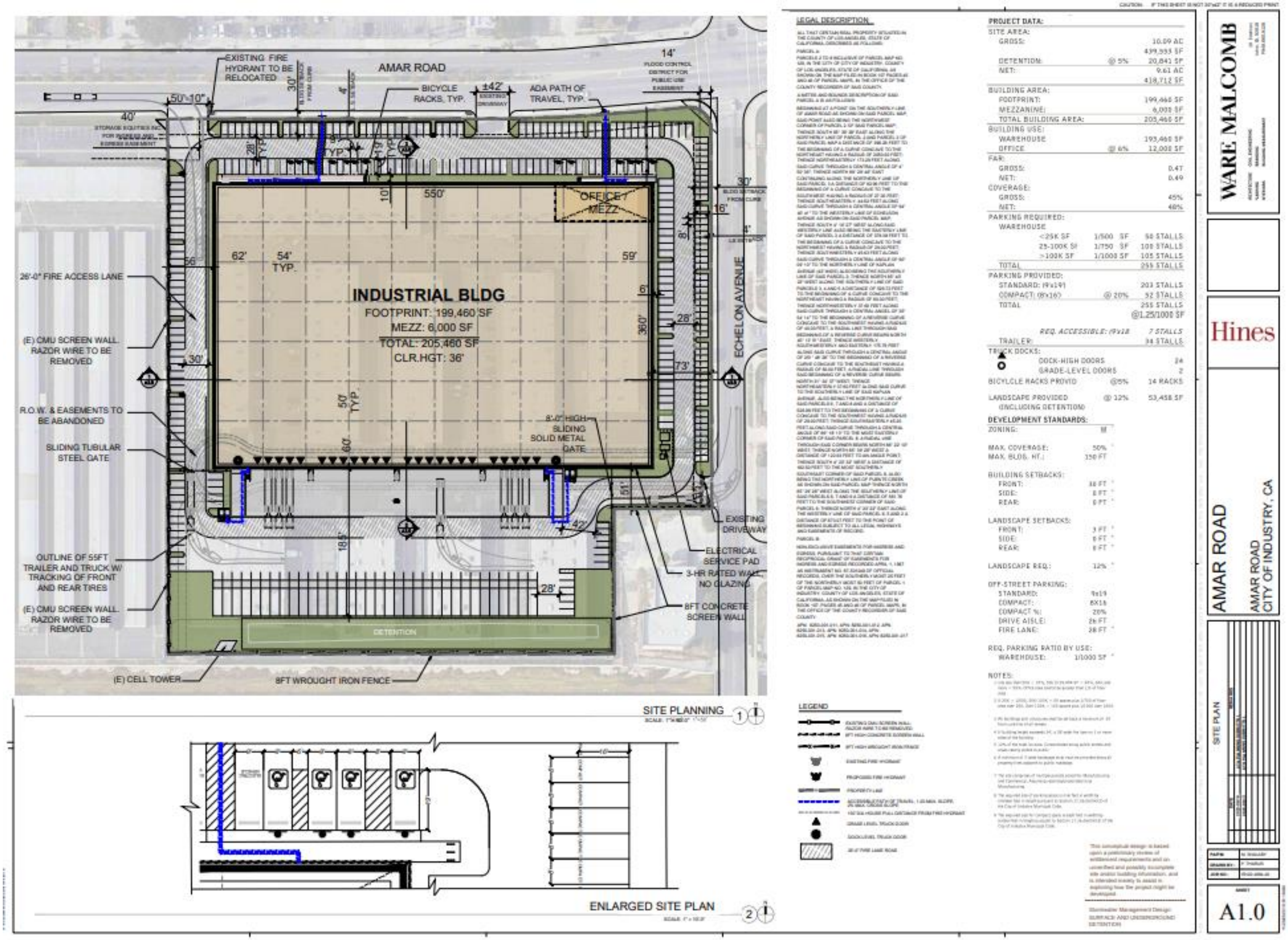


Figure 2-8: Exterior Elevations

2.2 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” or “Less Than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology/Soils	☐	Greenhouse Gas Emissions	☒	Hazards & Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☒	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation/Traffic	☒	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

2.3 Determination

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 has been 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 adequately analyzed 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.

Dina Lomeli
Contract Senior Planner

Date

2.4 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 would 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 from “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 significant.

CHAPTER THREE – ENVIRONMENTAL IMPACT DISCUSSION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics – Except as provided in Public Resources Code Section 21099, 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) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- City of Industry 2014 General Plan Final EIR (certified June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Los Angeles County GIS-NET
- Submitted Project Materials
- California Department of Transportation. List of Eligible and Officially Designated State Scenic Highways, 2019

Findings of Fact: The Project site is located in an urban built-up environment in the northern portion of the City, in the County of Los Angeles. The Project site currently has ten (10) existing buildings used for industrial and commercial purposes: an approximately 18,280 square foot building and a 30,008 square foot building are used for commercial purposes, and eight (8) buildings are used for light industrial purposes with the following square footages 13,065 square feet, 14,378 square feet, 13,728 square feet, 13,647 square feet, 16,715 square feet, 10,213 square feet, and two buildings with 10,210 square feet. The existing structures will be demolished as a part of this Project. The Applicant proposes to construct one (1) industrial building totaling 205,460 square feet with building heights ranging from 41 to 44.5 feet tall. The proposed building height is in conformance with the Industrial (M) zone height requirements which notes a maximum height of up to 150 feet is permitted. The Project site is adjacent to existing industrial buildings within a developed area. The nearest State-designated scenic highway is a portion of SR-91 located approximately 14.6 miles southeast of the Project site. The nearest historic building, the Homestead Museum, is located approximately two miles southwest of the Project site within the City's limits.

The Project has been designed to be consistent with the development standards of the City's Industrial Zone. The proposed building will integrate new sources of lighting that will be consistent in character with the current use and surrounding industrial developments. Lighting will be constructed in a manner that prohibits excessive glare and light spill by utilizing shields or hoods that direct the light in a downward manner away from adjoining properties. These additional light sources are not anticipated to be substantial enough to adversely affect day or nighttime views in the area. The Project will be conditioned as part of the DP, GPA, and ZC to ensure compliance with the City's General Plan and Zoning Ordinance goals and standards. Additionally, the Project is providing adequate landscaping throughout the site creating a harmonious and attractive environment for the residential uses located east of the Project.

Discussion of Impacts

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact: The Project site is not adjacent to or within the viewshed of a scenic vista. The scenic vistas and corridors of the City are provided by the Puente Hills to the south and the San Gabriel Mountains to the north. The properties surrounding the Project site consist of commercial and single-family residences to the north and east, and industrial uses to the south and west. There are ten (10) existing buildings located on the Project site that were previously utilized for commercial and light industrial operations with a footprint of approximately 164,259 square feet. The Project consists of general plan and zoning code amendments to change the land use designation from Commercial to Employment, and the zoning from Commercial (C) to Industrial (M), a Parcel Map to merge the existing parcels into a single 10.9-acre parcel, abandon the right-of-way and easement for Kaplan Avenue, demolish the existing buildings, and construct one (1) industrial building totaling 204,000 square feet with building heights ranging from 41 to 44.5 feet tall. Due to the Project's compliance with the City's zoning ordinance, the consistency in scale with the surrounding industrial uses, and the location of the Project site outside the vicinity of a scenic vista, Project impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant Impact: The Project is not located within the vicinity of a state scenic highway. The nearest State-designated scenic highway is a portion of SR-91 located approximately 14.6 miles southeast of the Project site. Additionally, the nearest State-eligible scenic highway is SR-57 located approximately 6.2 miles southeast of the Project site. As described in Section "a" above, the Project site is currently fully developed with buildings used for commercial and industrial uses. The Project site has existing landscaping along the Project frontage on Amar Road and Kaplan Avenue which will be removed during Project construction. The proposed landscaping for the Project will cover 53,693 square feet of the total lot area (12.2%) and includes the planting of trees, shrubs, and succulents. The Project site is not within the vantage point of a scenic highway. Furthermore, the City's historic building, the

Homestead Museum, lies outside of the Project vicinity and will not be impacted by the proposed development. Due to the nature of the surrounding industrial uses, the existing on-site development, and the distance between the Project site and a scenic highway, the proposed demolition of existing buildings and replacement would have a less than significant impact on scenic resources.

c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact: The Project site is located within an urbanized area and is currently developed with approximately 164,259 square feet of industrial and commercial buildings. The Project proposes a GPA to Employment and a ZC to Industrial (M) for two (2) of the seven (7) parcels, APNs: 8250-001-011,12, to allow for the merging of the seven lots into one lot for a Parcel Map and the construction of the proposed industrial building. Upon approval of a GPA and ZC the Project will be consistent with the land use designation of Employment and Industrial (M) zoning designation of the site. The proposed building will be constructed of concrete tilt-up walls and will remain consistent with the visual character of the existing light industrial structures on Kaplan Avenue as well as the surrounding industrial uses and existing buildings in the vicinity of the Project site. The building will range in height from 41 to 44.5 feet tall, which conforms with the City's M Zone regulations that permit heights up to 150 feet. The design of the Project is compliant with the City's Industrial (M) zoning requirements. Therefore, the Project would not conflict with zoning or other regulations and impacts to scenic quality would not occur.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant Impact: The proposed Project would introduce new sources of light at the re-developed Project site including building, parking, and security lighting. Proposed lighting will conform to the City's General Plan and Zoning Ordinance. Section 17.16.026 of the City's Municipal Code requires outdoor lighting to be shielded to direct light and glare only onto the facility premises and away from adjoining properties. All lighting would be designed, arranged, directed, or shielded to prevent excess illumination and light spillover onto adjoining land uses. These measures also serve to reduce any adverse effects of the new source of lighting on nighttime views.

Any signage that would be installed with the Project would comply with the City's sign regulations, as set forth in Chapter 15.32 of the City's Municipal Code. The building exteriors will be mostly concrete masonry and will contain glass and clear anodized aluminum finishes. The glass windows will be placed intermittently along the south, west, and east facing sides of the building, and will frame the two main office entryways on the north face of the building. Refer to Figure 2-8 for illustration of the exterior finishes. The amount of glass on the buildings would not be sufficient to create substantial glare that would affect daytime views. The on-site light sources due to the proposed buildings are not anticipated to be substantial enough to adversely affect day or nighttime views in the area. Project design will be consistent with the current land use and surrounding land uses. Therefore, a less than significant impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agricultural 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 the information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including 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, forest land (as defined by Public Resource Code section 122220(g)), timberland (as defined by Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land 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 non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

<u>Sources:</u>

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Los Angeles County General Plan Update 2035
- California Department of Conservation (CDC). California Important Farmland Finder, 2016

Findings of Fact: The City was founded as a business and industrial hub. According to the City's General Plan Land Use Map, there are no land uses designated for agriculture, forest, or timberland within the City's boundaries. Furthermore, the Project site is located in the northern portion of the City near Valinda, an unincorporated area of Los Angeles County, and West Covina, which are comprised of highly urbanized residential and commercial communities. The Applicant is requesting approval for a GPA and ZC to change the land use from Commercial to Employment, and the Zoning from Commercial (C) to Industrial (M) for two (2) of the seven (7) parcels on the Property. The Project site is adjacent to industrial, commercial, and residential land uses. The Property is currently developed with ten (10) existing industrial and commercial buildings with landscaping along the Property frontage of Amar Road and Kaplan Avenue. There are no active agriculture, forest, or timberlands within the vicinity of the Project.

Discussion of Impacts

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, forest land (as defined by Public Resource Code section 122220(g)), timberland (as defined by Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?

d) Result in the loss of forest land or conversion of forest land 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 non-agricultural use or conversion of forest land to non-forest use?

a-e) **No Impact:** The following analysis addresses environmental checklist questions a) through e) for Agriculture and Forestry Resources. The California Department of Conservation manages the Farmland Mapping and Monitoring Program (FMMP), which identifies and maps significant farmland. Farmland is classified using a system of five categories including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance or Potential, and Grazing Land. The classification of farmland is determined by a soil survey conducted by the Natural Resources Conservations Service (NRCS) which analyses the suitability of soils for agricultural production.

Based on the Important Farmland Finder, an interactive GIS application, there are no agricultural resources within the City, and the nearest farmland of significance is located well outside of the Project vicinity in San Bernardino County. The Project site is identified as "Urban and Built-Up Land" (CIFF 2016). Additionally, the Project site is fully disturbed and developed with ten (10) existing buildings and associated improvements. The Project site includes five (5) parcels zoned Industrial (M) and two (2) parcels zoned Commercial (C). The Applicant proposes to change the existing Commercial Zoning and Land Use Designation of the two parcels to Industrial (M) and Employment, respectively. The Project includes the demolition of the existing buildings, and construction of one (1) industrial building, which is permitted within the City's M zone. The Project would not conflict with a forest land area or timberland production. The Project site would not conflict with zoning for agricultural uses and is not subject to a Williamson Act contract. The Project would not result in other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. Therefore, no impact to agricultural or forestry resources would occur.

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
III. Air Quality – Where available, the significance criteria established by the applicable air quality management district 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) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Los Angeles County GIS-NET
- South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP). revised draft 2022.
- Amar and Kaplan Ave. Air Quality and Greenhouse Gas Assessment. Urban Crossroads, Inc. August 25, 2023. (Appendix A)
- Amar and Kaplan Avenue Mobile Source Health Risk Assessment. Urban Crossroads, Inc. August 25, 2023 (Appendix B)

Regulatory Setting: The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of South Coast Air Quality Management District (SCAQMD). 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. The SCAB is 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.

Criteria Pollutants

Both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called “criteria” pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O3) (precursor emissions include NOX and reactive organic gases (ROG), CO, particulate matter (PM), nitrogen dioxide (NO2), sulfur dioxide (SO2), and lead (Pb)). Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas.

Regional Air Quality

The SCAQMD has developed regional significance thresholds for criteria pollutants, as summarized in Table 3-2. The SCAQMD’s CEQA Air Quality Significance Thresholds (April 2019) 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 Regional Emissions Thresholds

Pollutant	Construction	Operation
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day

*lbs/day – Pounds Per Day

Local Air Quality

Localized Significant Thresholds (LSTs) apply to CO, NO2, PM10, and PM2.5. The SCAQMD produced look-up tables for projects less than or equal to five acres in size. The SCAQMD’s screening look-up tables are utilized in determining localized impacts. It should be noted that since the look-up tables identify thresholds at only one acre, two acres, and five acres, linear regression has been utilized to determine localized significance thresholds. Consistent with SCAQMD guidance, the thresholds presented in Table 3-2 were calculated by interpolating the threshold values for the Project’s disturbed acreage.

The acres disturbed is based on the equipment list and days in the demolition, site preparation and grading phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an eight-hour workday. For analytical purposes, emissions associated with peak site preparation and grading activities are considered for purposes of LSTs since this phase represents the maximum localized emissions that would occur. The Project’s construction activities could disturb a maximum of approximately 0.5 acres per day for demolition, one acre per day for site preparation and 1.5 acres per day for grading activities. Any other construction phases of development would result in lesser emissions and consequently lesser impacts than what is disclosed herein. As such, Table 3-2 presents thresholds for localized construction and operational emissions.

Table 3-2 Maximum Daily Localized Emissions Thresholds

Source	Activity	VOC	NOX	PM_{10}	$PM_{2.5}$
Construction	Demolition	83 lbs/day	673 lbs/day	5 lbs/day	4 lbs/day
	Site Preparation	102 lbs/day	852 lbs/day	6 lbs/day	5 lbs/day
	Grading	108 lbs/day	912 lbs/day	7 lbs/day	5 lbs/day
Operations	n/a	183 lbs/day	1,814 lbs/day	15 lbs/day	9 lbs/day

Toxic Air Contaminants (TAC)
In 1984, as a result of public concern for exposure to airborne carcinogens, CARB adopted regulations to reduce the amount of TAC emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products. The seven TACs studied include those that are derived from mobile sources: diesel particulate matter (DPM), benzene (C6H6), and 1,3-butadiene (C4H6); those that are derived from stationary sources: perchloroethylene (C2Cl4) and hexavalent chromium (Cr(VI)); and those derived from photochemical reactions of emitted VOCs: formaldehyde (CH2O) and acetaldehyde (C2H4O).

Sensitive 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, and individuals with pre-existing respiratory or cardiovascular illnesses. Structures that house these persons or places where they gather are defined as “sensitive receptors”. These structures typically include uses such as residences, hotels, and hospitals where an individual can remain for 24 hours. Consistent with the LST Methodology, the nearest land use where an individual could remain for 24 hours to the Project site has been used to determine construction and operational air quality impacts for emissions of PM10 and PM2.5, since PM10 and PM2.5 thresholds are based on a 24-hour averaging time.

Findings of Fact: The Project is consistent with the City’s General Plan, which provides consistency with the SCAQMD AQMP. Build out 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.

An Air Quality and Greenhouse Gas Assessment was prepared by Urban Crossroads on August 25, 2023 (Appendix A) to evaluate the Project. The California Emissions Estimator Model (CalEEMod) v2022.1 was used to calculate construction-source and operational-source criteria pollutant (VOCs, NOX, SOX, CO, PM10, and PM2.5) and GHG emissions from direct and indirect sources. Additionally, a Mobile Source Health Risk Assessment was prepared by Urban Crossroads on August 25, 2023, to evaluate the health risk impacts to sensitive receptors as a result of Project implementation.

Discussion of Impacts

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact: The Project site is located within the SCAB, which is characterized by relatively poor air quality. 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 SCAB. In response, the SCAQMD has adopted a series of 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.

In December 2022, the SCAQMD released the Final 2022 Air Quality Management Plan (2022 AQMP). Similar to the 2016 AQMP, the 2022 AQMP establishes thresholds for criteria pollutants; projects that exceed any of the indicated daily thresholds should be considered as having an individually and cumulatively significant air quality impact and are not in compliance with the AQMP. The primary purpose of the air quality plans is to bring an area that does not attain federal and state air quality standards into compliance with those standards pursuant to the requirements of the Clean Air Act and California Clean Air Act. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
2) Whether the project will exceed the assumptions in the AQMP, or increments based on the years of project buildout phase.

Criterion 1 - Increase in the Frequency or Severity of Violations?
The violations that Consistency Criterion No. 1 refers to are the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). CAAQS and NAAQS violations would occur if regional or localized significance thresholds were exceeded. As evaluated in the Air Quality and Greenhouse Gas Assessment (Appendix A), the Project's regional and localized construction and operational-source emissions would not exceed applicable regional significance thresholds. As such, a less than significant impact is expected.

Criterion 2 - Exceed Assumptions in the AQMP?
The 2016 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 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 the City's General Plan is considered to be consistent with the AQMP.

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. As such, when considering that no emissions thresholds will be exceeded, a less than significant impact would result.

The City's General Plan designates the Project site as Commercial for APNs 8250-001-011 and 8250-001-012, and Employment for the remaining five parcels. The zoning designation for the Project site is Commercial (C) for APNs 8250-001-011 and 8250-001-012, and Industrial (M) for the remaining five parcels. The Project proposes a general plan amendment which would change the land use designation from Commercial to Employment for APNs 8250-001-011 and 8250-001-012. The Employment designation allows for a wide range of business and employment uses including industrial manufacturing, assembly, printing, machining, milling, welding research and development, distribution, warehousing, storage, and supporting office uses. The Project proposes a zoning code amendment to rezone the site from Commercial (C) to Industrial (M) for APNs 8250-001-011 and 8250-001-012. The Industrial (M) designation allows for manufacturing, agriculture, waste management facilities, and storage facilities. Upon approval of a general plan amendment and zoning code amendment by the City, the Project is consistent with the General Plan and Zoning Ordinance. Furthermore, the Project as evaluated herein would not exceed the regional or localized air quality significance thresholds. On the basis of the preceding discussion, the Project is determined to be consistent with the AQMP and a less than significant impact is expected.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact: The CAAQS designates the Project site as nonattainment for O3, PM10, and PM2.5 while the NAAQS designates the Project site as nonattainment for O3 and PM2.5. The AQMP states 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 cumulatively 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. The following analysis is based on the Air Quality and Greenhouse Gas Assessment prepared by Urban Crossroads (Appendix A).

Construction Related Impacts

The Project involves construction activities associated with demolition, site preparation, and grading. Construction activities associated with the Project would result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Construction is scheduled to occur from January 2024 and would last through December 2024. Table 3-3 presents the results of the Project's regional construction impact assessment, and Table 3-4 presents the results of the Project's localized construction impact assessment.

Table 3-3 Overall Regional Construction Emissions Summary

Source	**Emissions (pounds/day)**					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Summer						
2024	1.09	26.80	40.30	0.10	4.68	1.75
Winter						
2024	52.60	27.10	40.10	0.10	6.00	2.85
Maximum Daily Emissions	**52.60**	**27.10**	**40.10**	**0.10**	**6.00**	**2.85**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Table 3-4 Project Localized Construction Impacts

On-Site Emissions	Emissions (pounds/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Demolition				
Maximum Daily Emissions	**12.00**	**18.20**	**3.78**	**0.87**
SCAQMD Regional Threshold	83	673	5	4
Threshold Exceeded?	**No**	**No**	**No**	**No**
Site Preparation				
Maximum Daily Emissions	**15.70**	**30.00**	**5.76**	**2.79**
SCAQMD Regional Threshold	102	852	6	5
Threshold Exceeded?	**No**	**No**	**No**	**No**
Grading				
Maximum Daily Emissions	**20.00**	**36.20**	**2.93**	**1.23**
SCAQMD Regional Threshold	108	912	7	5
Threshold Exceeded?	**No**	**No**	**No**	**No**

The Project-specific evaluation of emissions presented in Tables 3-4 and 3-5 demonstrates that proposed Project construction-source air pollutant emissions would not result in exceedances of regional or local thresholds. Therefore, proposed Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

Operation Related Impacts

Long-term air quality impacts generally involve mobile source emissions generated from project-related traffic and stationary source emissions. Operational emissions would be expected from the following primary sources—mobile source emissions, area source emissions, energy source emissions, and on-site equipment emissions. The estimated emissions generated by Project operations onsite are shown in Table 3-5, which presents the results of the Project's regional operation impact assessment. Table 3-6 presents the results of the Project's local operation impact assessment. As shown in Table 3-7, the proposed Project is anticipated to generate slightly more emissions per day for pollutants of VOC, NOX, CO, SOX, PM10, and PM2.5 as compared to emissions generated by the existing building. However, the Project would not exceed the thresholds of significance established by the SCAQMD for emissions of any criteria pollutant. Therefore, operational emissions would be less than significant.

Table 3-5 Total Project Regional Operational Emissions

Source	**Emissions (pounds/day)**					
	VOC	**NO_X**	**CO**	**SOx**	**PM10**	**PM2.5**
Summer						
Mobile Source	1.04	12.40	12.50	0.12	2.37	0.64
Area Source	6.12	0.07	8.87	<0.005	0.01	0.02
Energy Source	0.06	1.06	0.89	0.01	0.08	0.08
On-Site Equipment	0.12	0.38	16.44	0.00	0.03	0.03
Total Max Daily Emissions	**7.34**	**13.91**	**38.70**	**0.13**	**2.49**	**0.77**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Winter						
Mobile Source	1.03	13.00	11.9	0.12	2.37	0.64
Area Source	4.66	0.00	0.00	0.00	0.00	0.00
Energy Source	0.06	1.06	0.89	0.01	0.08	0.08
On-Site Equipment	0.12	0.38	16.44	0.00	0.03	0.03
Total Max Daily Emissions	**5.87**	**14.44**	**29.23**	**0.13**	**2.48**	**0.75**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Table 3-6 Project Localized Operational Impacts

On-Site Emissions	**Emissions (pounds/day)**			
	NO_x	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Daily Emissions	3.03	29.64	0.15	0.13
SCAQMD Regional Threshold	183	1,814	15	9
Threshold Exceeded?	**No**	**No**	**No**	**No**

Table 3-7 Project Net New Regional Operational Emissions

Source	**Emissions (pounds/day)**					
	VOC	**NO_X**	**CO**	**SOx**	**PM10**	**PM2.5**
Summer						
Proposed Project	7.34	13.91	38.70	0.13	2.49	0.77
Existing Building	5.83	11.51	18.65	0.10	1.98	0.59
Net Emissions (Proposed minus Existing)	**1.51**	**2.40**	**20.05**	**0.03**	**0.51**	**0.18**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Winter						
Proposed Project	5.87	14.44	29.23	0.13	2.48	0.75
Existing Building	4.65	11.95	11.01	0.10	1.97	0.58
Net Emissions (Proposed minus Existing)	**1.22**	**2.49**	**18.22**	**0.03**	**0.51**	**0.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project operational-source air pollutant emissions would not result in exceedances of regional or local thresholds. The Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.

Therefore, the proposed Project operational-source emissions would be considered less than significant on a project-specific and cumulative basis.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact: A Mobile Source Health Risk Assessment (HRA) dated August 25, 2023, was prepared by Urban Crossroads, to assess the health risk impacts to sensitive receptors and adjacent workers associated with the Project (Appendix B). Specifically, exposure to Toxic Air Contaminants (TACs) such as diesel particulate matter (DPM) was evaluated which will result from heavy-duty diesel trucks accessing the site during construction and the long-term operation of the Project. The HRA was prepared in accordance with the guidelines outlined in the Health Risk Assessment Guidance for Analyzing Cancer Risks 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 ten (10) persons per million as the maximum acceptable incremental cancer risk due to TAC exposure from a project,

Construction Related Impacts

To assess health risks as a result of Project construction, emissions were calculated on an assumed mix of construction equipment and hauling activity as presented in the Air Quality and Greenhouse Gas Assessment (Appendix B). Construction related DPM emissions are expected to occur primarily as a function of the operation of heavy-duty construction equipment. Sensitive receptors evaluated in the Project study area are listed below. All distances are measured from the Project site boundary to the outdoor living areas (e.g., backyards) or at the building façade, whichever is closer to the Project site.

- R1 - Residence at 16037 Amar Road, approximately 145 feet north of the Project site.
- R2 - Residence at 16102 Pocono Street, approximately 85 feet east of the Project site.
- R3 - Residence at 603 Ranlett Avenue, approximately 1,645 feet south of the Project site.
- R4 - Residence at 15909 Loukelton Street, approximately 318 feet southwest of the Project site.
- R5 - Residence at 15767 Lanwood Street, approximately 1,237 feet west of the Project site.
- R6 - EZ Cooling HVAC Supply at 15925 Loukelton Street, approximately 65 feet south of the Project site.
- R7 – Public Storage facility at 15920 Amar Road, approximately 25 feet west of the Project site.

The Project would result in approximately 262 total working days of construction activity. The land use with the greatest potential exposure to Project construction-source DPM emissions is Location R2 which is located approximately 85 feet east of the Project site at an existing residence located at 16102 Pocono Street. Since there are no private outdoor living areas (backyards) facing the Project site, R2 is placed at the building façade. At the Maximum Expose Individual Receptor (MEIR), the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at 3.81 in one million, which is less than the SCAQMD significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. Location R2 is the nearest receptor to the Project site and due to meteorological conditions (wind speed and direction) at the site would experience the highest concentrations of DPM during Project construction. Because all other modeled receptors would experience lower concentrations of DPM during Project construction, all other receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for this location (Appendix B).

Operation Related Impacts

To calculate operational related impacts, vehicle DPM emissions were calculated using emission factors for particulate matter less than 10µm in diameter (PM10) generated with the 2021 version of the EMission FACtor model (EMFAC) developed by the CARB. Annual average PM10 emission factors were generated by running EMFAC 2021 in EMFAC Mode for vehicles in the Los Angeles County jurisdiction. 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:

- Idling – on-site loading/unloading and truck gate
- 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 HRA analyzed receptors located in both residential and non-residential (worker) land uses in the vicinity of the Project. These receptors are included in the HRA since residents, workers, and school children may be exposed at these locations over a long-term duration of 30, 25, and 9 years, respectively. This methodology is consistent with SCAQMD and the Office of Environmental Health Hazard Assessment (OEHHA) recommended guidance.

Residential Exposure Scenario

The residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R2 which is located approximately 85 feet east of the Project site at an existing residence located at 16102 Pocono Street. Since there are no private outdoor living areas (backyards) facing the Project site, R2 is placed at the building façade. At the MEIR, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 0.66 in one million, which is less than the SCAQMD significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01 which would not exceed the applicable significance threshold of 1.0. Location R2 is the nearest receptor to the Project site and due to meteorological conditions (wind speed and direction), the site would experience the highest concentrations of DPM during Project operation. Because all other modeled receptors are located at a greater distance than the MEIR analyzed herein, and DPM dissipates with distance from the source, and all other receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project operational activity. All other receptors would experience less risk than what is identified for this location.

Worker Exposure Scenario

The worker receptor land use with the greatest potential exposure to Project operational - source DPM emissions is Location R7, the Public Storage facility located at 15920 Amar Road, which represents the potential worker receptor located approximately 0.16 feet east of the Project site. At the MEIW, the maximum incremental cancer risk impact is 0.16 in one million which is less than the SCAQMD's threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Location R8 is the worker receptor that would experience the highest concentrations of DPM during Project operation due to meteorological conditions at the site. All other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby workers.

School Child Exposure Scenario

The nearest school is Workman High School, located approximately 1,645 feet south of the Project site and represented by location R3. The MEISC is the school receptor that would experience the highest modeled concentrations of DPM, and thus the highest risk. At the MEISC, the maximum incremental cancer risk impact attributable to the Project is calculated to be 0.06 in one million, which is less than the significance threshold of 10 in one million. At this same location, non-cancer risks attributable to the Project were calculated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled school receptors would be exposed to lower concentrations of DPM, all other school receptors in the vicinity of the of the Project would be exposed to less emissions and therefore less risk than the MEISC identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby school children.

Based on the preceding analysis, the proposed Project would not expose sensitive receptors to substantial pollution concentrations in any of the applicable scenarios. As analyzed in the Health Risk Assessment prepared by Urban Crossroads dated August 25, 2023, the maximum incremental cancer risk impact is calculated to be less than the significance threshold of 10 in one million during the construction phase and long-term operation phase of the Project (Appendix B). Therefore, impacts to sensitive receptors are less than significant.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact: The Project will not involve land uses that are typically associated with odor complaints such as, agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities. 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 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 Project would also be required to comply with SCAQMD Rule 402 (Nuisance) to prevent occurrences of public nuisances. Therefore, odors associated with the Project construction and operations would be less than significant and no mitigation is required.

	Potentially Significant Impact	Less Than Significant 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 U.S. 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, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, 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?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

<u>Sources:</u>

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Los Angeles County GIS-NET
- San Gabriel River Corridor Master Plan, June 2006

- California Department of Fish and Wildlife (CDFW) BIOS
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory
- Low Impact Development Plan (LID Plan) Hines Industry Hills 15940-16016 Amar Rd. and 15940-16040 Kaplan Ave. Ware Malcomb. Date prepared September 9, 2022, revised November 16, 2022. (Appendix H)

Findings of Fact: The Project site is currently developed with ten (10) existing buildings utilized for industrial operations and is located within an urban area. The Project vicinity consists of industrial uses with ornamental landscaping. The closest natural area is the Industry Hills Recreation Center and Industry Hills Golf Club, located 0.56 miles south of the Project site. Project site and surrounding uses include landscaping such as non-native trees, grass, shrubs, and hedges along property boundaries and within landscaped planters. Endangered species are not likely on the Project site or in the immediate vicinity. The Project site and immediate surrounding areas to the north, east, and west are heavily developed. Adjacent to the southern boundary of the Project site is the cement lined Puente Creek Channel.

The San Gabriel River is located approximately 4.7 miles west of the Project site. The San Gabriel River Freeway (605) and existing residential, commercial, and industrial developments provide a significant buffer between the river and the Project site. The Project site is bounded to the south by Puente Creek Channel which is a concrete structure that is used for flood control. Puente Creek Channel drains into the San Jose Creek Diversion Channel which drains into the San Gabriel River then to the Pacific Ocean. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water. It is not anticipated that the development of the Project will have a significant impact on the San Gabriel River or other biological resources. Additional discussion pertaining to the Project's drainage and flood control is provided in *Section X. Hydrology and Water Quality* of this IS/MND.

The Project has a National Land Cover Database (NLCD) designation of "Developed, High Intensity" according to the CDFW's BIOS GIS application, meaning there is no land cover consistent with wildlife habitat. Additionally, the Project site as well as the surrounding vicinity are in urban areas that are utilized generally for industrial uses and single-family residences. The National Land Cover Database (NLCD) designation for the surrounding areas consists of "Developed, High Intensity," and "Developed, Medium Intensity". Species are not likely on the Project site or in the immediate vicinity due to regional characteristics of the area and the built-out, industrial nature of the City.

Discussion of Impacts

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 Game or U.S. Fish and Wildlife Service?

No Impact: The Project site is developed with ten (10) existing industrial and commercial buildings, parking lots, landscaping, and other on-site infrastructure that is consistent with the Project site's industrial zoning designation. No significant biological habitat exists on the Project site and no candidate, sensitive or special species are known to exist on the site or in the Project area. The Project consists of demolishing the existing structures and constructing one (1) new industrial building totaling 204,000 square feet on the site, which would not cause a substantial adverse effect on any species identified as a candidate, sensitive, or special status species. Therefore, no impacts would occur.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

Less than Significant Impact: There are no habitat areas, riparian or otherwise, sensitive natural communities, wetlands, or migratory wildlife corridors for sensitive mammals, reptile, or fish species on the Project site that would otherwise be threatened by Project development. The Project site has no riparian habitat or other sensitive natural community; no wetlands or other jurisdictional waters of the United States, and no surface water bodies, drainages, streams, or waterways within the Project site.

The southern perimeter of the Project site is bounded by the Puente Creek Channel that is identified as a riverine system according to the USFWS National Wetlands Inventory (NWI). The concrete lined channel is classified as R4SBAx. The classification is utilized to identify characteristics of the channel, such as the fact that the channel is manmade. The riverine portion of the channel is characterized by flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent. Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for most of the season (USFWS).

Although there is a concrete channel structure within the vicinity of the Project site, the Project would not result in any impacts to Puente Creek as Project construction will remain within the boundaries of the site. Furthermore, the Project site is fully developed and Project implementation will include demolishing the existing structures and replacing with one (1) new industrial building. The proposed drainage pattern for the site has been structured to match the existing drainage patterns to the maximum extent possible (Appendix I). Additional discussion pertaining to the Project's drainage and flood control is provided in *Section X. Hydrology and Water Quality of this IS/MND*. The extent of the proposed Project is not anticipated to have an adverse effect on the water body in the vicinity, as no change in Project drainage will occur. A less than significant impact would occur.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant Impact: No wetlands exist on-site. The nearest wetland according to NWI is Puente Creek, an engineered drainage channel, adjacent to the southern boundary of the Project site that drains into the San Jose Creek Diversion Channel then into the San Gabriel River. Project implementation is not anticipated to cause a significant adverse effect to the channel or river. There will be no direct removal, filling, hydrological interruption, or other means of adverse effect as this channel is located outside of the Project site. The proposed demolition of the existing buildings and construction of the one (1) new industrial building is permitted within the Industrial (M) zone and is subject to meeting local and state regulations on water quality management and best management practices. A less than significant impact would occur.

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?

Less than Significant Impact with Mitigation Incorporated: The Project site is fully developed and has minimal landscaping that includes approximately 54 trees along the Project frontage and Kaplan Avenue that will be removed during the demolition phase of the Project. These trees have the potential to be suitable "habitat" for wildlife species, specifically nesting. Pursuant to the Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 USC 703; 50 CFR 10, 21). Therefore, the Project will implement pre-construction nesting bird surveys through Mitigation Measure **BIO-1** (as set forth below) to reduce potential impacts to any nesting birds to a less than significant level. No habitat including waters or native trees exists on-site. The Project site is developed with landscaping along the Project frontage which consists of trees and grass. The Property is classified as having a Limited Connectivity Opportunity for terrestrial movement of species (CDFW). Implementation of the proposed Project with Mitigation Measure **BIO-1** would not interfere with the movement of any migratory fish or wildlife species. Additionally, the Project site is not an established wildlife corridor or designated nursery site according to the California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service (CDFW). A less than significant impact would occur with mitigation incorporated.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact: The City has no ordinances protecting biological resources. There are no plans or policies at the local, regional, or state level dedicated to tree preservation that include the Project site. No impact would occur.

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?

No Impact: There are no adopted plans or policies at the local, regional, or state level dedicated to habitat conservation that govern the Project site (CDFW). No impact would occur.

Mitigation Measures

IV. Biological Resources

(d) **BIO-1: Pre-Construction Nesting Bird Survey**

If it is not feasible to avoid the nesting bird season (typically January through July for raptors and February through August for other avian species), a qualified biologist shall conduct a pre-construction nesting bird survey for avian species to determine the presence/absence, location, and status of any active nests on or directly adjacent to the Project Site. If active nests are located, the extent of the survey buffer area surrounding the nest should be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and the CFGC, the nesting bird survey shall occur no earlier than 15 days prior to the commencement of construction.

In the event that active nests are discovered, a suitable buffer (distance to be determined by the biologist) shall be established around such active nests, and no construction within the buffer allowed, until the biologist has determined that the nest(s) is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest).

	Potentially Significant Impact	Less Than Significant 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 pursuant to §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- California Environmental Quality Act (CEQA) 2022
- National Parks Service, U.S. Department of the Interior. National Register of Historic Places
- Phase I Environmental Site Assessment Industry Hills Business Center 15940-16056 Amar Road And 15940-16063 Kaplan Avenue City Of Industry, California. Ramboll US Consulting. May 2022. (Appendix C)

Discussion of Impacts

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact: The Project site is developed and not within the immediate vicinity of a historical resource as defined in CEQA Guidelines §15064.5, and thus would not impact any historical resource. No impact would occur.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant Impact with Mitigation Incorporated: Project construction would require grading activities to demolish the ten (10) existing buildings onsite totaling 164,259 square feet, and the abandonment of Kaplan Avenue. Given the developed nature of the Project site and surrounding area, the discovery of archeological resources is unlikely. Although, it is not anticipated that unknown cultural resources exist on-site, Mitigation Measures **CUL-1** (as set forth below) is identified to ensure that in the event that unanticipated resources are encountered during grading activities, potential impacts would remain less than significant. In the event archeological resources are discovered, grading activities must cease, a qualified archeologist must be consulted, and all discoveries must be documented accordingly. Implementation of the Project is not anticipated to result in a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5 of the CEQA Guidelines. A less than significant impact with mitigation incorporated would occur.

c) Disturb any human remains, including those outside of formal cemeteries?

Less than Significant Impact with Mitigation Incorporated: Due to the developed nature of the Project site and surrounding area, no human remains, or cemeteries are anticipated to be disturbed by the proposed Project. The Phase I Environmental Site Assessment (ESA) conducted by Ramboll US Consulting, Inc. on May 2022, (Appendix C) for the proposed Project reports that the historical use of the subject property was for agricultural purposes and supporting residences from 1928 through the 1940's. The site fluctuated between agriculture uses and vacant land util 1979 when seven (7) industrial buildings were constructed along Amar Road. The remaining industrial buildings appear to have been constructed along Kaplan Avenue by 1987. Aerial photographs provided in the Phase I ESA date back to 1928. Review of these aerial photos did not identify possible cemeteries in the area, and therefore, the likelihood of encountering human remains during Project development is minimal. However, these findings do not preclude the existence of previously unknown human remains located below the ground surface, which may be encountered during construction excavations associated with the proposed Project. As a result, Mitigation Measure **TCR-3** (as set forth below) will be implemented to reduce potentially significant impacts to previously unknown human remains that may be unexpectedly discovered during project implementation to a less than significant level. Consistent with State law, if at any time during grading human remains are found, the Project is to be conditioned to halt work and contact the Los Angeles County Coroner's Office. Based on compliance with existing regulations and the implementation of Mitigation Measure **TCR-3**, the Project's potential to disturb human remains is considered less than significant with mitigation.

Mitigation Measures

V. Cultural Resources

V. (b)

CUL-1: Inadvertent Archaeological Discovery

If at any time during excavation/construction of the site, archaeological/cultural resources, or any artifacts or other objects which reasonably appear to be evidence of cultural or archaeological resource are discovered, the Property owner shall immediately advise the City of such, and the City shall cause all further excavation or other disturbance of the affected area to immediately cease.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:				
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a State or Local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- California Energy Commission. Clean Energy and Pollution Reduction Act – SB 350. 2022.
- California Energy Commission. Joint Energy Report – SB 100. 2022.
- California Department of General Services. California Building Standards Code (Title 24, 2022).
- California Air Resources Board. Guide to Off-Road Vehicle & Equipment Regulations.

Findings of Fact: The California Energy Conservation and Development Commission (California Energy Commission) adopted Title 24, Part 6, of the California Code of Regulations; Energy Conservation Standards for new residential and nonresidential buildings in June 1977 and standards are updated every three years. Title 24 ensures building designs conserve energy. The requirements allow for the opportunities to incorporate updates of new energy efficiency technologies and methods into new developments.

Energy resources that would be potentially impacted by the Project include electricity, natural gas, and petroleum-based fuel supplies and distribution systems. This analysis includes a discussion of the potential energy impacts of the Project, with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. A general definition of each of these energy resources is provided below:

Electricity is a man-made, consumptive utility resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves several system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands.

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel.

Petroleum-based fuels currently account for a majority of California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined.

Discussion of Impacts

a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact: The proposed Project would impact energy resources during construction and operation. The construction activities for the Project would include demolition, site preparation, grading, building construction, paving, and architectural coating. The Project would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the Project site, construction worker travel to and from the Project site, as well as delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities);
2. Electricity associated with the conveyance of water that would be used during Project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction Related Impacts

Construction of the Project would result in fuel consumption from construction tools and equipment, vendor and haul truck trips, and vehicle trips generated from construction workers traveling to and from the site. Construction activities and corresponding fuel energy consumption would be temporary and localized. The use of diesel fuel and heavy-duty equipment would not be a typical condition of the Project. Also, there are no unusual Project characteristics that would cause construction equipment that would be less energy efficient compared with other similar construction sites in other parts of the State.

Electricity and Natural Gas Usage

Southern California Edison (SCE) would provide temporary electric power for as-necessary lighting and electronic equipment. The electricity used for such activities would be temporary and would be substantially less than that required for Project operation and would have a negligible contribution to the Project's overall energy consumption.

Natural gas is not anticipated to be required during construction of the Project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the "Petroleum Fuel Usage" subsection. Any minor amounts of natural gas that may be consumed as a result of Project construction would be substantially less than that required for Project operation and would have a negligible contribution to the Project's overall energy consumption.

Petroleum Fuel Usage
Off-road heavy-duty construction equipment associated with construction activities would rely on diesel fuel, as well as vendors and haul trucks that would be involved in delivering building materials and removing the demolition debris from the Project site. All construction equipment is subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation. This regulation, which applies to all off-road diesel vehicles 25 horsepower or greater, limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment, and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with Best Available Control Technology requirements, which would increase construction equipment fuel efficiency. These limitations on idling vehicles and equipment, and the requirements that equipment must be properly maintained (CCR Title 13, Sections 2449(d)(3) and 2485), would result in fuel savings. Due to the temporary nature of construction, the Project would not result in wasteful, inefficient, and unnecessary consumption of energy. Further, there are no policies at the local level applicable to energy conservation specific to the construction phase.

Operational Related Impacts
Electricity and Natural Gas Usage
SCE and Southern California Gas Company (SoCalGas) would provide electricity and natural gas for the Project. The on-going operation of the proposed industrial facility would require the use of electricity for multiple purposes including, but not limited to, refrigeration, lighting, appliances, and electronics. Natural gas is often used for Heating Ventilation and Air Conditioning (HVAC) systems and hot water heaters. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment and vehicle trips. Natural gas will be required for the operation of the Project.

The operation of the Project would involve the development of one (1) industrial building totaling 205,460 square feet. According to CEQA Guidelines Appendix F, the goal of conserving energy implies the wise and efficient use of energy, including decreasing overall per capita energy consumption, reducing reliance on natural gas and oil, and increasing reliance on renewable energy sources. The Project would comply with all energy efficiency requirements under Title 24 and all applicable City business and energy ordinances. As a result, even with the increase in demand for electricity and natural gas, the operation of the Project would not result in inefficient, wasteful, or unnecessary energy use compared with other similar industrial projects in the region. A less than significant impact would occur.

b) Conflict with or obstruct a State or Local plan for renewable energy or energy efficiency?

Less than Significant Impact: The applicable state plans that address renewable energy and energy efficiency are CALGreen, the California Energy Code, and the California Renewable Portfolios Standard (RPS). Under the California RPS, the State of California is transitioning to renewable energy through the California's Renewable Energy Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. Electricity production from renewable sources is generally considered carbon neutral. Executive Order S-1408, signed in November 2008, expanded the state’s RPS to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Senate Bill 350 (de Leon) was signed into law September 2015, and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. Senate Bill 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. On September 10, 2018, Governor Brown signed SB 100, which supersedes the SB 350 requirements. Under SB 100, the RPS for public owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Additionally, SB 100 also established a new RPS requirement of 50 percent by 2026. The bill also established a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under SB 100, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

The statewide RPS goal is not directly applicable to individual development projects, but to utilities and energy providers such as Southern California Edison (SCE), which is the utility provider that would fulfill all electricity needs for the proposed Project. Compliance of SCE in meeting the RPS goals would ensure the State in meeting its objective in transitioning to renewable energy. Additionally, the proposed Project would comply with the Building Energy Efficiency Standards and CALGreen. Therefore, implementation of the proposed Project would not conflict or obstruct plans for renewable energy and energy efficiency and a less than significant impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils– Would the project:				
a) Directly or indirectly cause 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 direct or indirect 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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Los Angeles County GIS-NET
- California Department of Conservation (CDC). California Earthquake Hazards Zone Application (EQ Zapp). 2021.
- Phase I Environmental Site Assessment Industry Hills Business Center 15940-16056 Amar Road And 15940-16063 Kaplan Avenue City Of Industry, California. Ramboll US Consulting, Inc. May 2022. (Appendix C)
- Geotechnical Investigation Report for Industrial Development Site 16008 Amar Road, City of Industry, California. Langan Engineering and Environmental Services, Inc. June 8, 2022. (Appendix F)
- Update to Geotechnical Engineering Report Amar Road Industrial Development City of Industry, California, Langan Project No.: 700117702. Langan Engineering and Environmental Services, Inc. March 30, 2023. (Appendix G)

Findings of Fact**:**

Faulting and Seismicity

The Project site, like the rest of Southern California, is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The principal source of seismic activity is movement along the northwest-trending regional faults such as the San Andreas, San Jacinto, and Elsinore fault zones. These fault systems produce approximately 5 to 35 millimeters per year of slip between the plates.

The Project site is not included within any Earthquake Fault Zones as established by the Alquist-Priolo Earthquake Fault Zoning Act. Review of geologic literature pertaining to the site area indicates that there are no known active or potentially active faults located within or immediately adjacent to the subject property. The closest known active fault to the site is the Walnut Creek fault which has been mapped approximately 0.2 miles northwest of the site. Other active or potentially active faults nearby include the San Jose fault mapped approximately 2.9 miles east of the site, and the Whittier fault approximately 4.9 miles south of the site, which is an Alquist-Priolo Earthquake Fault Zone.

Surface Fault Rupture and Ground Shaking

Due to the distance between the Project site and the nearest known active fault, the potential for fault rupture at the site is considered low. However, due to the proximity of known active and potentially active faults, severe ground shaking should be expected during the life of the proposed structures.

Liquefaction

Liquefaction and seismic settlement are conditions that can occur under seismic shaking from earthquake events. Liquefaction describes a phenomenon in which saturated, cohesionless soil loses strength during an earthquake as a result of induced shearing strains. Lateral and vertical movements of the soil mass, combined with loss of bearing can result in the event of liquefaction. Fine, well sorted, loose sand, shallow groundwater conditions, higher intensity earthquakes, and particularly long duration of ground shaking are the requisite conditions for liquefaction.

Langan Engineering and Environmental Services conducted a review of the California Geological Survey online data for zones of required investigation for geologic hazards (such as fault rupture, liquefaction, or landsliding). Langan Engineering and Environmental Services uncovered that the Project site is mapped in a zone of required investigation for liquefaction according to California Geological Survey (CGS) map titled "Earthquake Zones of Required Investigation, Baldwin Park Quadrangle". Based on the 1998 CGS report "Seismic Hazard Zone Report for the Baldwin Park 7.5-Minute Quadrangle", the historic high groundwater depth at the site is between approximately 30 and 35 feet. A liquefaction evaluation was performed using a historical groundwater depth of 30 feet for boring LB-3. For the analysis, an acceleration of 0.83g and magnitude earthquake of 6.9 was used based on a hazard level of two (2) percent probability of exceedance in 50 years. Based on the analysis, the factor of safety against liquefaction for the design earthquake is greater than 2, so liquefaction is not anticipated. Dry dynamic settlement of less than 1 inch is anticipated under the design earthquake event (Appendix F).

Seismically Induced Settlement

Ground accelerations generated from a seismic event can produce settlements in sands or in granular earth materials both above and below the groundwater table. This phenomenon is often referred to as seismic settlement and is most common in relatively clean sands, although it can also occur in other soil materials. Langan's analysis indicates dry dynamic settlement of less than 1 inch is anticipated under the conditions of the design earthquake (Appendix F).

Lateral Spreading

Seismically induced lateral spreading involves primarily movement of earth materials due to earth shaking. Lateral spreading is demonstrated by near-vertical cracks with predominantly horizontal movement of the soil mass involved. Though the Project is mapped within a zone of required investigation for liquefaction and Puente Creek is located adjacent to the southern property boundary, the topography in the vicinity of the Project site is relatively flat. Therefore, the potential for lateral spreading at the Project site is considered very low.

Discussion of Impacts

a) Directly or indirectly cause 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.

Less than Significant Impact: Neither the site nor any area within the jurisdictional boundaries of the City are within an Alquist-Priolo Earthquake Fault Zone. The Project site is not included within any Earthquake Fault Zones as created by the Alquist-Priolo Earthquake Fault Zoning Act. The geotechnical review pertaining to the site area indicates that there are no known active or potentially active faults located within or immediately adjacent to the subject property. The closest known active fault to the site is the Walnut Creek fault which has been mapped approximately 0.2 miles northwest of the site. Other active or potentially active faults nearby include the San Jose fault mapped approximately 2.9 miles east of the site, and the Whittier fault approximately 4.9 miles south of the site which is a Alquist-Priolo Earthquake Fault Zone.

Although there are no known active faults through the Project site, the site is still subject to ground shaking and potential damage as a result of seismic activity, which is characteristic of Southern California. Accordingly, proposed construction will be designed and constructed in accordance with applicable portions of Section 1808.6.2 of the 2022 California Building Code ("CBC") to ensure that potential impacts are less than significant.

ii. Strong seismic ground shaking?

Less than Significant Impact: The Project site is subject to strong seismic ground shaking and potential damage as a result of seismic activity, which is characteristic of Southern California. Accordingly, proposed construction would be designed and constructed in accordance with applicable portions of Section 1808.6 of the 2022 CBC to ensure that potential impacts are less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact: Liquefaction is a phenomenon associated with shallow groundwater combined with the presence of loose, fine sands, and/or silts within a depth of 50-feet below grade or less. Liquefaction occurs when saturated, loose, fine sands and/or silts are subjected to strong ground shaking resulting from an earthquake event. Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile. Increasing duration of the ground shaking during a seismic event can also increase the potential for liquefaction.

Langan Engineering and Environmental Services performed a liquefaction analysis for boring LB-3 using a historical high groundwater depth of 30 feet. For the analysis, an acceleration of 0.83g and magnitude earthquake of 6.9 was used based on a hazard level of 2 percent probability of exceedance in 50 years. Blow counts collected with a California Modified Sampler were factored with a value of 0.65 to calculate equivalent SPT N- Values. Based on the analysis, the factor of safety against liquefaction for the design earthquake is greater than 2, so liquefaction is not anticipated. Dry dynamic settlement of less than 1 inch is anticipated under the design earthquake event.

Considering the total seismic settlements estimated as a result of the design level seismic event and assuming a differential seismic settlement of less than 1-inch should be anticipated for the design of structures. Typically, this magnitude of differential seismic settlement is considered tolerable for structures with concrete tilt-up walls and steel frame roofs. However, the Project structural engineer shall evaluate the planned structure design and conclude that the estimated static and seismic settlements are acceptable. Furthermore, the Project would be designed and constructed in accordance with applicable portions of Section 1808.6 of the 2022 CBC to ensure that potential impacts to seismic-related ground failure are less than significant. A less than significant impact would occur.

iv. Landslides?

No Impact: Landslides result from the downward movement of earth or rock materials that have been influenced by gravity. In general, landslides occur due to numerous factors including steep slope conditions, erosion, rainfall, groundwater, adverse geologic structure, and grading impacts. The Project site is relatively flat and not considered at risk for landslides. Therefore, no impact would occur.

b) Result in substantial soil erosion or the loss of topsoil?

No Impact: The Project site is fully developed with ten (10) buildings, collectively 164,259 square feet, and was formerly used for commercial and light industrial uses. The Applicant is proposing to demolish the existing buildings and construct one (1) new industrial building totaling 205,460 square feet, and abandon Kaplan Avenue. Measures to manage erosion will be implemented pursuant to the 2022 CBC to ensure that the faces of cut and fill slopes are prepared and maintained to control erosion throughout construction. Any exposed soil is proposed to be landscaped and the Project would comply with the applicable City regulatory programs related to erosion. Therefore, the Project would have no impact on erosion.

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?

Less than Significant Impact with Mitigation Incorporated: On May 16th and 17th 2022, eight (8) test borings were drilled under the full-time observation of a Langan field engineer and are identified as LB-1 through LB-8 in the Geotechnical Investigation Report prepared by Langan Engineering and Environmental Services (Appendix F). Two (2) borings were completed to a depth of 6.5 feet, four (4) borings were completed to a depth of 26.5 feet, one (1) boring was completed to a depth of 51.5 feet and boring LB-8 was used for a percolation test and was completed to a depth of 10 feet.

Undocumented fill was encountered under asphalt pavement at the boring locations to a depth of four to five feet and consisted of low and high plasticity brown to dark brown, sandy clay or silty clay with varying amounts of silt or sand. Asphalt pavement had a thickness of 3.5 to five inches. An aggregate base was encountered and had a thickness of three to six inches. Expansive index testing of the upper 5 feet in LB-6 resulted in an expansive index of 84 or medium expansive potential. Alluvial deposits were encountered under the undocumented fill and consisted of interbedded brown to dark brown clay, sandy clay and sandy silt and silty to clayey sand and sands with varying amounts of gravel. Though the historic high groundwater depth at the site is between approximately 30 and 35 feet according to the 1998 CGS report Seismic Hazard Zone Report for the Baldwin Park 7.5-Minute Quadrangle, groundwater was not encountered to the maximum depth explored of 50 feet.

Based on the borings drilled, the soil underlying the proposed building consists of artificial fills and alluvial deposits. In general, the artificial fill in the upper four to five feet of the site is not suitable for support of the proposed structures and should be over-excavated and replaced with controlled, compacted fill. In the event miscellaneous fill soils are encountered deeper, the fills should be removed to native alluvium deposits. Removals should extend laterally beyond the structures to a distance equal to the depths of removal but should generally extend not less than five feet beyond the outside edges of foundations. Over-excavated material can be used as engineered fill in accordance with Section 7.2 of the Geotechnical Investigation Report (Appendix F).

The Project will be required to comply with all requirements and recommendations outlined in the Geotechnical Investigation prepared by Langan Engineering and Environmental Services as required by Mitigation Measure **GEO-1**, as set forth below.

Furthermore, the Project will comply with all applicable provisions of the Uniform Building Code (UBC) and the 2022 California Building Code (CBC) that would act to minimize any unstable soils or unstable geologic units that may be encountered. On this basis, the potential for the Project to be located on a geologic units or soil that is unstable, or that would become unstable as a result of the Project and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse is less than significant with mitigation incorporated.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less than Significant Impact with Mitigation Incorporated: One of the potential geotechnical hazards at the Project site is the expansion potential of the near surface soils. Over time, expansive soils will experience cyclic drying and wetting as the dry and wet seasons pass. Expansive soils experience volumetric changes (shrink/swell) as the moisture content of the clayey soils fluctuates. These shrink/swell cycles can impact foundations and lightly loaded slabs-on-grade when not designed for the anticipated expansive soil pressures. Expansive index testing of the upper five feet of soil that underlays the Project site indicates that the soil has a medium expansion potential. The soils with the expansion potential were the clayey soils within the undocumented fill. If these soils are to be used as backfill within the upper five feet of the site, Langan recommends mixing the soils with less expansive soils to reduce potential for heaving and settlement of pavement and other flatwork on site.

The attached Geotechnical Investigation Report (Appendix F) provides a broad overview of the geotechnical and geologic factors which are expected to influence future site planning and development. Based on their investigation and testing program, it is the opinion of Langan Engineering and Environmental Services, Inc., that the proposed development is feasible from a geotechnical standpoint, provided that the recommendations presented in the Geotechnical Investigation Report are incorporated into Project design and implemented during grading and construction. Therefore, Mitigation Measure **GEO-1** requires the Project to comply with all requirements and recommendations outlined in the Geotechnical Investigation Report prepared by Langan Engineering and Environmental Services, dated June 8, 2022 (Appendix F). Incorporation of Mitigation Measure **GEO-1** will reduce Project impacts to less than significant.

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?

No Impact: The Project site is serviced by Suburban Water Systems for potable water, and sewage disposal services are provided via the Los Angeles County Sanitation Districts (LACSD). The Project does not propose to utilize a septic tank or alternative wastewater disposal system. In addition, the Phase I ESA identified that there was no indication of an existing septic system on the property (Appendix C). Therefore, the Project will have no impact.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact with Mitigation Incorporated: No paleontological resources have been discovered or are known to exist on the site. Implementation of the

Project will require some grading and installation of underground service facilities. Given the highly disturbed condition of the Project site from the previous development, the discovery of paleontological resources is unlikely. Implementation of the Project is not anticipated to destroy a unique paleontological resource or site directly or indirectly; nonetheless mitigation measures are identified and discussed below to ensure that in the event that unanticipated resources are encountered during excavation, impacts would remain less than significant. Mitigation Measure **GEO-2**, as set forth below, has been included to further ensure that any impact is reduced to a less than significant impact with mitigation incorporated into the Project.

Mitigation Measures

Mitigation:

VII. (c, d)

GEO-1: Grading and Construction
The Project shall incorporate applicable recommendations provided in the Geotechnical Investigation Report prepared by Langan Engineering and Environmental Services, Inc. dated June 8, 2022 (Appendix F). The recommendations are presented in Section 6.0 Geotechnical Design Recommendations and Section 7.0 Construction Considerations of the report under the following subheadings: seismic design parameters, expansive soil, building foundations, spread footings or continuous footings, lateral resistance, floor slab, flatwork, corrosion considerations, pavement recommendations, utilities, site drainage, site preparation, and engineered fill and compaction criteria (pages 6-13).

VII. (f)

GEO-2: Inadvertent Paleontological Discovery
In the event that paleontological resources are inadvertently discovered during ground disturbing activities, the qualified paleontologist shall document the discovery as appropriate, evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. 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?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Los Angeles County GIS-NET
- Amar Avenue and Kaplan Avenue Air Quality and Greenhouse Gas Assessment. Urban Crossroads, Inc. February 17, 2023. (Appendix A)

Findings of Fact: The evaluation of an impact under CEQA requires measuring data from a project against both existing conditions and a "threshold of significance." For establishing significance thresholds, the Office of Planning and Research's amendments to the CEQA Guidelines Section 15064.7(c) state "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

The City has elected to rely on compliance with a local air district threshold in the determination of significance of Project-related greenhouse gas (GHG) emissions. Specifically, the City has selected the interim 3,000 MTCO2e per year threshold recommended by SCAQMD staff for residential and commercial sector projects against which to compare Project-related GHG emissions.

The 3,000 MTCO2e per year threshold is based on a 90 percent emission "capture" rate methodology. Prior to its use by the SCAQMD, the 90 percent emissions capture approach was one of the options suggested by the California Air Pollution Control Officers Association (CAPCOA) in their CEQA & Climate Change white paper (2008). A 90 percent emission capture rate means that unmitigated GHG emissions from the top 90 percent of all GHG-producing projects within a geographic area – the SCAB in this instance – would be subject to a detailed analysis of potential environmental impacts from GHG emissions, while the bottom 10 percent of all GHG-producing projects would be excluded from detailed analysis. A GHG significance threshold based on a 90 percent emission capture rate is appropriate to address the long-term adverse impacts associated with global climate change because medium and large projects will be required to implement measures to reduce GHG emissions, while small projects, which are generally infill development projects that are not the focus of the State's GHG reduction targets, are allowed to proceed. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial proportion of future development projects and demonstrate that cumulative emissions reductions are being achieved while setting the emission threshold high enough to exclude small projects that will, in aggregate, contribute approximate one percent of projected statewide GHG emissions in the Year 2050 (Appendix A).

Discussion of Impacts

a) Generate greenhouse gas emissions either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact:

Urban Crossroads conducted a Greenhous Gas Analysis for the proposed Project, dated February 17, 2023. The analysis provides the estimated GHG emissions that will result from Project construction and operation. Construction related GHG emissions are quantified and amortized over the life of the Project, which is identified as a 30-year period, in accordance with SCAQMD recommendation. Project operational emissions would consist of mobile source, area source, energy source, water supply and treatment, waste, refrigerants, and on-site equipment. As shown in Table 8-1, the Project would generate 2,285.46 $MTCO_2e$ per year. The existing buildings onsite generate an estimated 1,797.33 $MTCO_2e$ per year, which is detailed in Attachment D of Appendix A. Therefore, the Project would result in a net increase of approximately 488.13 MTCO2e per year. According to the threshold of significance, a cumulative global climate change impact would occur if the GHG emissions created from construction and on-going operations of the proposed Project would exceed the SCAQMD threshold of 3,000 $MTCO_2e$ per year. Therefore, since the Project will not exceed the threshold of significance, the Project does not have the potential to result in a cumulatively considerable impact with respect to GHG emissions and a less than significant impact will occur.

Table 8-1 Total Project Greenhouse Gas Emissions

Source	**Emissions (MT/yr)**				
	CO_2	**CH_4**	**N_2O**	**R**	**Total CO_2E**
Annual construction-related emissions amortized over 30 years	24.13	1.00E-03	1.33E-03	1.37E-02	24.53
Mobile	1,506	0.06	0.20	2.01	1,569
Area	4.14	<0.005	<0.005	0.00	4.26
Energy	414	0.03	<0.005	0.00	415
Water	81.80	1.54	0.04	0.00	131
Waste	17.10	1.71	0.00	0.00	59.90
Refrigerants	0.00	0.00	0.00	34.40	34.40
On-Site Equipment	0.00	0.00	0.00	0.00	47.37
Total CO_2E (All Sources)	2,285.46				

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact: The Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. Applicable plans adopted for the purpose of reducing GHG emissions include the California Air Resources Board (CARB) Scoping Plan and SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). A consistency analysis with these plans is presented below.

CARB Scoping Plan

CARB's 2022 Scoping Plan is California's GHG reduction strategy to achieve the state's GHG emissions reduction target established by Assembly Bill (AB) 1279, which is to reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045 (Appendix A). The CARB Scoping Plan is applicable to state agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

In November 2017, CARB released the Final 2017 Scoping Plan Update to address the new 2030 interim target to achieve a 40 percent reduction below 1990 levels by 2030, established by SB 32 (CARB 2017). Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard (LCFS), California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the Corporate Average Fuel Economy (CAFE) standards, and other early action measures as necessary to ensure the state is on target to achieve the GHG emissions reduction goals of AB 32. Also, new buildings are required to comply with the latest applicable Building Energy Efficiency Standards and California Green Building Code (CALGreen). While measures in the Scoping Plan apply to state agencies and not the proposed Project, the Project's GHG emissions would be reduced with statewide measures that have been adopted since AB 32 and SB 32 were adopted. Therefore, the proposed Project would not obstruct implementation of the CARB Scoping Plan and impacts would be less than significant.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy

SCAG's 2016-2040 RTP/SCS was adopted April 7, 2016. The RTP/SCS identifies multimodal transportation investments, including bus rapid transit, light rail transit, heavy rail transit, commuter rail, high-speed rail, active transportation strategies (e.g., bike ways and sidewalks), transportation demand management strategies, transportation systems management, highway improvements (interchange improvements, high-occupancy vehicle lanes, high-occupancy toll lanes), arterial improvements, goods movement strategies, aviation and airport ground access improvements, and operations and maintenance to the existing multimodal transportation system.

The RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The overarching strategy in the 2016-2040 RTP/SCS is to provide for a plan that allows the southern California region to grow in more compact communities in existing urban areas, provide neighborhoods with efficient and plentiful public transit, abundant and safe opportunities to walk, bike and pursue other forms of active transportation, and preserve more of the region's remaining natural lands (SCAG 2016). The 2016-2040 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as forecasted development that is generally consistent with regional-level general plan data. The projected regional development, when integrated with the proposed regional transportation network identified in the RTP/SCS, would reduce per capita vehicular travel related GHG emissions and achieve the GHG reduction per capita targets for the SCAG region.

The RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers. The Project would replace ten (10) existing buildings with one (1) industrial warehouse building and would abandon Kaplan Avenue. The Project requires a zoning code amendment to change two (2) of the parcels from Commercial (C) to Industrial, and a general plan amendment to change two (2) of the parcels from Commercial to Employment. Upon approval by the City, the Project is consistent with the general plan land use designation, density, building intensity, and applicable policies specified for the Project area in SCAG's Sustainable Community Strategy/ Regional Transportation Plan. Thus, a less than significant impact related to GHG emissions from Project construction and operation would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. 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, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

<u>Sources:</u>

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Los Angeles County GIS-NET

- Phase I Environmental Site Assessment Industry Hills Business Center 15940-16056 Amar Road and 15940-16063 Kaplan Avenue City of Industry, California. Ramboll US Consulting, Inc. May 2022. (Appendix C)
- Addendum to Phase I Environmental Site Assessment 16008 Amar Road, City of Industry, California. Ramboll US Consulting, Inc. May 22, 2023. (Appendix D)
- Environmentally Regulated Materials Survey Report Limited Due Diligence Asbestos and Lead Survey 16008 Amar Road, City of Industry, California 91744. Citadel EHS. November 17, 2022 (Appendix E)

Findings of Fact: A Phase I Environmental Site Assessment (ESA) was conducted by Ramboll US Consulting, Inc., for the Project to determine if any recognized environmental conditions (RECs) exist on the Project site in conformance with the scope and limitations of ASTM Practice E1527-13. The term “recognized environmental conditions” means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The results of the Phase I ESA revealed no evidence of RECs in connection with the site.

An Environmentally Regulated Materials Survey Report was conducted by Citadel EHS to determine the presence of asbestos-containing materials (ACM), lead based paint, universal waste and other hazardous/regulated materials requiring handling or disposal practices outside of conventional solid waste on the Project site. Sample testing was limited to the interior of the buildings onsite. The City will include conditions of approval requiring sample testing of the exterior of the buildings.

Property History

The site was occupied by an orchard and supporting residence from 1928 through the 1940s. The orchards were replaced by row crops in the 1950s. Site use fluctuated between row crops and vacant land until 1979 when seven (7) industrial buildings were constructed along Amar Road. The remaining industrial buildings appear constructed along Kaplan Avenue by 1987. Retail tenants located within the Amar Road buildings between the 1980s to present day have largely included restaurants, medical offices, dental offices, shops, a liquor store, training and additional learning schools, and beauty salons. Light industrial tenants at the site listed along Kaplan Avenue have included flooring, metal fabrication, drapery sales, various contractors, custom upholstery, air conditioning, fashion sales, award shop, jewelry sales, grinding operations, woodworking operations, dye works, and silkscreen printers. Based on Ramboll’s review of the past uses of the site, it is unlikely that chlorinated solvents or PFAS were previously used, stored, or handled at the buildings onsite. Chemical storage at the retail portion of the site is largely limited to retail sizes of janitorial, housekeeping and sanitizing chemicals stored in cabinets and beneath bathroom sinks. No releases were reported by facility personnel in the tenant spaces. Chemicals are not stored in exterior areas of the site.

Past Light Industrial Operations at the Site

The site was first developed in 1979 with seven industrial buildings. The remaining buildings were constructed by the mid-1980s. Eight of the ten buildings located along Kaplan Avenue have been utilized for light industrial purposes since the mid-1980s. There is no readily available information as to the specific use of chemicals during this time period, but there is no indication that these operations were chemically intensive or involved the use of significant amounts of petroleum products or other hazardous substances. The site is not listed on any environmental databases indicative of a release or of hazardous waste generation other than a release reported at Century Control Tech at 15947 Kaplan Avenue. According to files received from the Los Angeles Regional Water Quality Control Board (RWQCB), Century Control Technologies was inspected on December 16, 1997, by RWQCB staff. The site was being used for the storage of computer parts and no hazardous chemicals or chlorinated solvents were being used. The RWQCB issued a letter indicating that no further action would be required. Because the incident was granted closed status, Ramboll does not consider this matter to represent a contamination concern to the site. Ramboll notes that these operations were conducted during a time period when robust environmental regulations were in place regarding chemical handling and waste management. While Ramboll cannot rule out the possibility that inadvertent spills or releases of chemicals or petroleum products have occurred in the past, no specific contamination concerns were identified (e.g., obvious evidence of contamination, former underground storage tanks, listings indicating past chlorinated solvent use in significant quantities, known releases), and thus this matter is not considered a REC.

Past Use of Site for Residential Purposes and Agricultural Orchards

The site was previously used for agricultural purposes such as fruit orchards from at least 1928 until 1978. During this time period, a few scattered residences and associated outbuildings were present along the northwestern edge of the site. The residences and outbuildings may have used aboveground or underground fuel oil tanks for heating purposes and for farm vehicle fueling. Also, past orchard operations may have involved the application of arsenical and lead-based pesticides commonly used on orchards in the first half of the 20th century, or other organic pesticides commonly used on orchards thereafter. Facility personnel reported no knowledge of past subsurface testing for any pesticides. In addition, smudge pots (oil filled orchard heaters) may have been used at the site to keep frost from damaging the fruit. Because Ramboll's review did not identify documentation of a release, a suspected release, or a potentially material threat of a release of a hazardous substance or petroleum product related to this matter, it is not considered a REC; however, absent further information, the potential presence of these compounds in the site subsurface cannot be ruled out. Ramboll notes that this matter is unlikely to result in regulatory scrutiny, assuming no changes to site use. Ramboll further notes that the use of such substances in this region (which is and has been historically widely used for fruit production) would have been fairly widespread and ubiquitous.

De Minimis Condition - Pavement and Floor Staining

Ramboll observed multiple areas of exterior pavement and interior flooring where oil stains were apparent. Multiple approximately two-square-foot areas of staining were observed around the CNC machine in the JB CNC LLC tenant space. Additional minor pavement staining was observed in the parking lot areas. The stains were limited in areal extent, the underlying pavement/flooring appeared to be intact, there were no floor drains located within the tenant spaces, and no stains appeared to reach stormwater drains. As such, Ramboll considers this matter to represent a de minimis condition.

Citadel EHS has identified the following non-ASTM issues:

- **Asbestos-Containing Materials/Asbestos-Containing Construction Materials (ACMs):** Citadel EHS collected a total of 165 asbestos bulk samples for analysis. While the results of the samples tested indicate no asbestos detected, sample materials not tested are presumed to be asbestos containing materials (PACM) as they were built before

1980. Refer to Table 9-1 for a list of PACM building material locations within the Project site.

- **Lead-Containing Paint (“LCP”):** A total of 123 building components were tested omitting calibration checks and null readings. Though the survey revealed that building components were not coated in lead-based paint (LBP), LCPs were present in the areas surveyed. Refer to Table B.1 of Appendix E.

Discussion of Impacts

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact with Mitigation Incorporated:

Construction Effects:
The proposed Project involves the demolition of ten (10) existing buildings totaling 164,259 square feet, and the construction of one (1) new industrial building totaling 205,460 square feet. Project construction would require fuels, lubricating fluids, solvents, cleaners, and paint. The use, transport, storage, and disposal of hazardous materials using these substances is subject to existing regulations established by several agencies which the Project would comply with, including the Department of Toxic Substances Control (DTSC), the EPA, the US Department of Transportation (USDOT), the Occupational Safety & Health Administration (OSHA), and the Los Angeles County Fire Department. Additionally, the Project will comply with policies S4-1 through S4-3 of the City’s General Plan Safety Element requiring hazardous material handling protocols to ensure safe storage, handling, transport, use, and disposal of all hazardous materials (City of Industry, 2014).

The Environmentally Regulated Materials Survey Report prepared by Citadel EHS identified areas within the existing buildings onsite that have not yet been tested but that are presumed to have asbestos-containing materials (PACM) as the building materials were constructed no later than 1980 and are assumed to contain greater than one percent asbestos. Refer to Table 9-1.

Table 9-1: Project Locations with Presumed Asbestos Containing Materials (PACM)

MATERIAL DESCRIPTION	MATERIAL LOCATION	APPROX QUANTITY (Square Feet = SF)	SAMPLE RESULTS
15940 Through 16012 Amar Road			
16008			
Wood Laminate Floor, Underlayment	Office and Breakroom	616 SF	PACM
Fiberglass Reinforced Paneling (FRP) Adhesive	Restroom	50 SF	PACM
Mirror Mastic	Restroom	3 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM
16016 Through 16056 Amar Road			
16020			
Wood Laminate Floor, Underlayment	Office and Breakroom	288 SF	PACM
Fiberglass Reinforced Paneling (FRP) Adhesive	Restroom	30 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM
15959 Through 15941 Amar Road			
15957			
Fiberglass Reinforced Paneling (FRP) Adhesive	Restroom	55 SF	PACM
Mirror Mastic	Restroom	5 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM
16001 through 16021 Amar Road			
16011			
Mirror Mastic	Restroom	3 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM
16023 Through 16041 Amar Road			
16035			
Fiberglass Reinforced Paneling (FRP) Adhesive	Restroom	50 SF	PACM
Mirror Mastic	Restroom	5 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM
16045 through 16063 Amar Road			

16063			
Fiberglass Reinforced Paneling (FRP) Adhesive	Restroom and Warehouse	305 SF	PACM
Mirror Mastic	Restroom	50 SF	PACM
Wood Laminate Floor, Underlayment	Offices, Entry and Lobby	336 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM
15940 Through 15946 Amar Road			
15942			
Fiberglass Reinforced Paneling (FRP) Adhesive	Restroom	55 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM
16000 Through 16010 Amar Road			
16008			
Wood Laminate Floor, Underlayment	Offices, Entry and Lobby	1,125 SF	PACM
Fiberglass Reinforced Paneling (FRP) Adhesive	Restrooms	110 SF	PACM
Mirror Mastic	Restrooms	10 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM
16010			
Wood Laminate Floor, Underlayment	Offices, Entry and Lobby	1,125 SF	PACM
Fiberglass Reinforced Plastic (FRP) Adhesive	Restrooms	110 SF	PACM
Mirror Mastic	Restrooms	10 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM
16020 through 16032 Amar Road			
16030			
Wood Laminate Floor, Underlayment	Entry Lobby	325 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM
16040 Through 16050 Amar Road			
16048			
Wood Laminate Floor, Underlayment	Entry Lobby	1,200 SF	PACM
Roofing Materials	Roof	N/Q	PACM

Exterior Building Materials	Exterior	N/Q	PACM
16050			
Wood Laminate Floor, Underlayment	Entry Lobby	1,200 SF	PACM
Roofing Materials	Roof	N/Q	PACM
Exterior Building Materials	Exterior	N/Q	PACM

Though building components were not coated with lead-based paint in the areas surveyed, lead-containing paint (LCP) was detected in the survey areas. As the existing structures onsite are presumed to include asbestos-containing materials and lead-containing paint, the Project will implement Mitigation Measure **HAZ-1**, as set forth below, which will ensure proper disposal of materials results in a less than significant impact during the demolition and construction phase of the Project. Additionally, the Project will be conditioned upon approval to have the exterior of the buildings tested for additional samples of asbestos prior to renovation and/or demolition activities. Therefore, Mitigation Measure **HAZ-1** and compliance with City conditions of approval ensures construction impacts would be less than significant.

Operational Effects:
No specific tenants have been identified for the proposed Project; however, the Project is not expected to routinely transport and/or use hazardous materials. Although it is anticipated that the Project will not transport and/or use hazardous materials, the Project will comply with policies S4-1 through S4-3 of the City's General Plan Safety Element requiring hazardous material handling protocols to ensure safe storage, handling, transport, use, and disposal of all hazardous materials (City of Industry, 2014). The Project is consistent with the underlying General Plan Land Use Designation of Employment and Industrial zoning designation.

With incorporation of mitigation measure **HAZ-1**, the Project would not result in a significant impact associated with the routine transport, use or disposal of hazardous materials. Impacts would be less than significant with mitigation incorporated.

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?

Less than Significant Impact with Mitigation Incorporated:

Construction Effects:
The construction phase of the Project will involve the demolition of ten (10) existing buildings totaling 164,259 square feet, and the construction of one (1) new industrial building totaling 205,460 square feet. The Environmentally Regulated Materials Survey Report identified that there is lead-containing paint and asbestos present in the existing buildings. Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the Environmental Protection Agency (EPA). As such, South Coast AQMD Rule 1403 incorporates the requirements of the federal asbestos requirements found in National Emission Standards for Hazardous Air Pollutants (NESHAP) found in the Code of Federal Regulations (CFR) Title 40, Part 61, Subpart M. The Project is required to comply with Rule 1403 to limit asbestos emissions from building demolition activities.

Cal/OSHA regulates worker safety with respect to the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. The use of certain construction materials may result in safety hazards. Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous materials, describing the hazards of chemicals, and documenting employee training programs. Incorporation of Mitigation Measure **HAZ-1** reduces impacts to construction workers and the public from any hazardous materials during construction activities to a less than significant impact.

Operational Effects:
As discussed in Section "a" above, construction and operation of the Project would comply with all applicable federal, state and local laws and regulations in order to reduce the likelihood and severity of accidents during potential future buildout of the Project site. Adherence to the required applicable regulations established by the federal, state, and local agencies with jurisdictions over fueling stations, such as Cal OSHA, CFC, RCRA, and OCFA would reduce potential impacts associated with hazardous waste and ensure any transport or interaction with hazardous materials occurs in the safest possible manner. This would reduce the opportunity for accidental release and impacts. Any hazardous material handling associated with the operation of the proposed Project would be limited in both quantity and concentration to the smallest possible limits. Pursuant to Cal OSHA requirements, all hazardous material stored on-site would be accompanied by a Material Safety Data Sheet, which would inform on-site operators of necessary remediation processes in the event of accidental release. Therefore, with implementation of all required applicable federal, state, and local regulations, potential impacts to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant with mitigation incorporated.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact with Mitigation Incorporated: The nearest school is Workman High School located approximately 483 feet south of the Project site at 16303 Temple Avenue within the City limits, followed by Valinda Middle School located approximately 0.28 miles northeast of the Project site, at 1030 Indian Summer Avenue in the jurisdiction of the City of La Puente. Puente Creek Channel and industrial warehouses are located immediately south of the Project site and serve as a buffer between Workman High School and the Project site. Additional surrounding uses include a warehouse storage to the west, residential uses to the east, and a mix of residential and commercial uses to the north. The Project is consistent with the character of the surrounding area.

Construction and operation of the Project would comply with all applicable federal, state and local laws and regulations in order to reduce the likelihood and severity of accidents during potential future buildout of the Project. Additionally, the Project will comply with policies S4-1 through S4-3 per the City's General Plan Safety Element requiring hazardous material handling protocols to ensure safe storage, handling, transport, use, and disposal of all hazardous materials (City of Industry, 2014). Furthermore, the Project would implement Mitigation Measure **HAZ-1** to ensure the removal of asbestos containing materials and lead containing paint would be handled pursuant to the recommendations outlined in the Environmentally Regulated Materials Survey Report and would not impact surrounding uses including Workman High School to the south (Appendix E). Furthermore, the Project will undergo an additional asbestos and lead survey of the exterior of the existing buildings onsite prior to issuance of a grading permit as a condition of Project approval by the City. Pursuant to Cal OSHA requirements, all hazardous material stored on-site would be accompanied by a Material Safety Data Sheet, which would inform on-site operators of necessary remediation processes in the event of accidental release. While there is an existing school located within 0.25 miles of the Project site, these measures would reduce potential impacts from hazardous materials or substances to a less than significant impact with mitigation incorporated.

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, would it create a significant hazard to the public or the environment?

Less than Significant Impact: Government Code Section 65962.5 describes that before an application for a development project is completed, the Applicant and/or Lead Agency shall indicate whether the site is included on any of the lists compiled pursuant to that section and identify which list(s). Ramboll US Consultants performed a search of state and federal environmental databases and reviewed information available in the California GeoTracker database. The Project site is listed on two environmental databases and multiple compliance databases which include CPS-SCIC, WIP, CHMIRS, Los Angeles County HMS database, EMI, HIST-FTTS, ICIS, EMI, CIWQS, CERS, ICIS, ECHO, NPDES, and FINDS. A full narrative describing the summary of past assessment and remediation is available in the Phase I ESA and Addendum to the Phase I ESA prepared by Ramboll US Consultants, Inc. (Appendix C and Appendix D). Through the Project site is listed on the above-mentioned databases, it is not listed on any hazardous material sites compiled pursuant to Government Code Section 65962.5. Therefore, the Project would not create a significant hazard to the public or the environment and a less than significant impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less than Significant Impact: The closest heliport is the LA County Sheriff's Department Heliport located approximately 1.45 miles southwest, followed by the Los Altos Food Products Heliport approximately 3.5 miles northwest of the Project site. The San Gabriel Valley Airport is the closest airport located approximately 6.5 miles northwest of the Project site in the City of El Monte. Though the Sheriff's Heliport in the City does not have a specific land use compatibility plan, it is subject to the general policies and criteria of the Los Angeles County Airport Land Use Plan (ALUP). The ALUP identifies <70 dBA CNEL as "Satisfactory" for industrial uses. The Project site is located in the Industrial (M) zone which has a 70 dBA CNEL noise contour threshold according to the General Plan. Furthermore, the proposed Project would be utilized as an industrial warehouse. Thus, the Project is consistent with the ALUP. Implementation of the Project is similar in building height to the existing industrial buildings in the surrounding area and will not require the use of cranes of sufficient height to pose a hazard to aviation. Though the Project is located within two miles of a heliport, the proposed Project is consistent with the ALUP and would not result in a safety hazard or excessive noise for people working or residing in the Project area. Thus, a less than significant impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact: The Project does not involve construction or operational characteristics which would interfere or impact emergency response or evacuation of the Project site or immediate surrounding area. Egress and ingress to the Project site will be maintained and circulation on-site is provided to comply with County and City requirements. Therefore, potential impacts to the implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan would be less than significant and no mitigation would be required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact: According to the California Department of Forestry and Fire Protection, the City is not within a severe fire hazard zone and does not anticipate exposure to hazards associated with wildland fires. The nearest Very High Fire Hazard Severity Zone (VHFHSZ) is located approximately 3.3 miles southwest of the Project site and no wildlands exist within the immediate vicinity of the site. The VHFHSZ is not anticipated to expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Furthermore, the Project site is currently developed with existing industrial structures. Therefore, implementation of the proposed Project would have a less than significant impact.

Mitigation Measures

<u>Mitigation:</u>

IX. (a, b, c)

HAZ-1 The Project shall incorporate applicable recommendations provided in the Environmentally Regulated Materials Survey Report prepared by Citadel EHS, dated November 17, 2022 (Appendix E). The recommendations are presented in Section 4.0 Conclusions and Recommendations of the report under the following sub-headings: Asbestos and Lead-Containing Materials (pages 12-15).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) 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; or	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Department of Homeland Security. FEMA Flood Map Service Center. December 2021.
- Suburban Water Systems, Southwest Water Company (SWS). Suburban Water Systems Water Supply. 2023.

- 2020 Urban Water Management Plan, Suburban Water Systems. June 2021.
- Phase I Environmental Site Assessment 15940-16056 Amar Road and 15940-16063 Kaplan Avenue City of Industry, California. Ramboll US Consulting. May 2022. (Appendix C)
- Low Impact Development (LID) Plan Hines Industry Hills 15940-16016 Amar Rd. and 15940-16040 Kaplan Avenue. City of Industry, California 91744. Ware Malcomb. September 9, 2022, revised November 16, 2022. (Appendix H)
- Hydrology and Hydraulics Study for 15940-16016 Amar Rd. and 15940-16040 Kaplan Ave. Accessor Parcel Number: 8250-001-011, 8250-012-017 City of Industry, Los Angeles County, California 91744. Ware Malcomb. November 16, 2022 (Appendix I).

Findings of Fact: The City lies within the San Gabriel River Watershed, and the San Gabriel River is the main drainage for the watershed. Major tributaries to the San Gabriel River along its path to the Pacific Ocean include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drainage structures. The watershed in Los Angeles County is under the authority of the Los Angeles Regional Water Quality Control Board (RWQCB). The County of Los Angeles Department of Public Works leads the planning and implementation of the San Gabriel River Watershed. The primary receiving water body for the majority of the City is San Jose Creek. The San Gabriel Basin aquifer, which encompasses approximately 170 square miles, is the primary groundwater and drinking water source for the San Gabriel Valley.

Flood Zones
The Project site is located in FEMA Flood Zone X (area of minimal flood chance) according to FEMA Flood Hazard map 060371695F, which is described as an area determined to be outside of the 100- and 500- year floodplains with a minimal flood hazard. According to the City's General Plan, Figure 16 "Dam Inundation Hazards", the Project site is located within the Puddingston Dam inundation area. In the event Puddingston Dam fails, water will reach the Project site approximately 90-100 minutes after dam failure.

Water Quality
The Low Impact Development (LID) Plan was prepared by Ware Malcomb dated September 9, 2022 and was revised on November 16, 2022. The LID Plan complies with the standard BMP requirements set forth by the Los Angeles Regional Water Quality Control Board. Additionally, the LID Plan sets forth Source Control Best Management Practices (BMPs), non-structural BMPs, Structural BMPs, and Inspection/Maintenance Responsibilities for the Project. This plan is included as Appendix H to this document.

Discussion of Impacts

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant Impact: According to the Low Impact Development Plan (LID) prepared by Ware Malcomb dated September 9, 2022, (Appendix H), the Project is considered a redevelopment project, which is a land-disturbing activity that results in the creation, addition, or replacement of a certain amount of impervious surface area on an already developed site. While the Project would result in an alteration to more than 50 percent of the impervious surface area on the already developed site, the existing site was subject to post-construction storm water quality control requirements. Thus, the site does not need to be mitigated. All designated projects must retain 100 percent of the Stormwater Quality Design Volume (SWQDv) on-site through infiltration, evapotranspiration, stormwater runoff harvest and use, or a combination thereof unless it is demonstrated that it is technically infeasible to do so. To meet these requirements, the Project must:

- Conduct site assessment and identify design considerations, including the feasibility of on-site infiltration,
- Apply site-specific source control measures,
- Calculate Stormwater Quality Design Volume,
- Implement stormwater quality control measures
- Develop a maintenance plan

In order to comply with the New Development and Redevelopment Standards of the Los Angeles County Municipal NPDES Permit (MS4 Permit), a Low Impact Development (LID) Plan was prepared by Ware Malcomb to determine the best capability of the Project to use BMPs to manage and capture stormwater runoff. With the implementation of the Stormwater Quality Control Measures outlined in the LID Plan as approved by the City, the volume of stormwater runoff and potential pollution loads in stormwater runoff will be reduced to the maximum extent possible. The LID Plan describes spill prevention, control and cleanup BMPs which reduce the potential for soil contamination and/or groundwater contamination. The Project will additionally conform with conditions related to water quality standards and waste discharge requirements to reduce the potential to substantially degrade surface or groundwater quality to a less than significant impact. Thus, a less than significant impact would occur.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact: According to *Figure 10: Water District Boundaries and Drainage Channels* of the City's General Plan, the Project site is serviced by Suburban Water Systems. Suburban Water Systems utilizes locally produced groundwater from wells in the San Gabriel Valley Main and Central Basins which provide approximately 80 percent of Suburban Water Systems water supply. The remaining water supply comes from surface water provided by the Metropolitan Water District of Southern California which imports its water from Northern California via the California Aqueduct. According to the 2020 Urban Water Management Plan (UWMP), Suburban Water Systems can expect to meet the majority of future demands through 2045 for average, single dry, and multiple dry years. Though several areas within the Whittier/La Mirada service areas indicate supply deficits during single and multiple dry years, groundwater supplies are shared amongst the entire Suburban Water Systems service area and shortfalls within one service area are supplemented by the surplus within the other service area. Furthermore, the supply-demand analysis in the UWMP does not include groundwater rights agreements with other agencies in the Basin.

Project implementation would result in a decrease of impervious area from 90% to 88.7%, or 395,751 square feet to 389,875 square feet (Appendix H). Therefore, the Project design would reduce the amount of groundwater recharge interference. The Project proposes to demolish ten (10) existing structures totaling 164,259 square feet, and construct one (1) industrial warehouse building totaling 205,460 square feet. The Project is consistent with the underlying land use designation upon approval of a general plan amendment by the City, and is not anticipated to generate an increased demand that would result in a net deficit in aquifer volume or a lowering of the local groundwater table. Therefore, a less than significant impact would occur.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site;

Less than Significant Impact: Buildout of the Project would result in a decrease of impervious area from 90% to 88.7%, or 395,751 square feet to 389,875 square feet. The Project proposes to demolish ten (10) existing structures totaling 164,259 square feet, and construct one (1) industrial warehouse building totaling 205,460 square feet. The Project is also not anticipated to substantially increase the amount of runoff or rate of surface runoff located on-site as the proposed development would not increase impervious surface area. Additionally, the implementation of the Stormwater Quality Control Measures outlined in the LID Plan will reduce the potential for on- or offsite flooding to the maximum extent possible. Therefore, a less than significant impact would occur.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; or

Less than Significant Impact: The Project site is currently developed with 164,259 square feet of industrial and commercial buildings which would be demolished and replaced with one (1) industrial warehouse building totaling 205,460 square feet. While the building footprint would increase by 41,201 square feet, based on the proposed site plan, the Project would decrease the amount of impervious surface on-site. Therefore, the Project would not significantly increase the amount of runoff water and is not expected to exceed the capacity of existing or planned stormwater drainage systems. Any increases in runoff quantities are expected to be within the capacity of the existing infrastructure. Additionally, the Project will implement the recommendations outlined in the LID Plan to reduce the potential for polluted stormwater runoff to a less than significant impact. The Project will follow the City's regulations regarding stormwater runoff and treatment for industrial projects. A less than significant impact would occur.

iii) 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?

Less than Significant Impact: The Project proposes a drainage system that will mimic the existing drainage patterns. The proposed grading and drainage designs are anticipated to protect the proposed on-site improvements from the 50-year storm event without causing adverse impacts to the downstream drainage conditions (Appendix I). Therefore, Project impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less than Significant Impact: The Project site is located in a FEMA Flood Zone X, outside of the 100- and 500-year floodplains according to *Figure 15: FEMA Flood*

Hazards of the General Plan. According to *Figure 16: Dam Inundation Hazards*, the Project site is located within the Puddingstone Dam Inundation Area within the City's northern limits. In the event Puddingstone Dam were to fail it would take over 90-100 minutes for water to reach the Project site. According to the Safety Element of the County of Los Angeles General Plan, the Division of Safety of Dams of the California Department of Water Resources has jurisdiction over large dams throughout the State and enforces strict safety requirements and annual inspections. Additionally, dam inundation areas have been mapped by dam owners and submitted to the California Office of Emergency Services (Cal/OES) to ensure effective emergency planning and adequate preparations in the event of a catastrophic event such as dam failure.

The site is not in an area that would be subject to seiche, tsunami, or flood due to the subject site's lack of directly adjacent bodies of water that could be the source of a seiche, distance from the shoreline in the event of a tsunami, or proximity to areas prone to landslides that could create mudflows or flash flooding. Therefore, there would be less than significant risk of releasing pollutants due to project inundation from flood, tsunami, or seiche. Furthermore, the engineering of the site along with implementation of the LID Plan will prevent on-site inundation. A less than significant impact would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact: A LID Plan was prepared by Ware Malcomb to determine the best capability of the Project to use BMPs to manage and capture stormwater runoff. With the implementation of the Stormwater Quality Control Measures outlined in the LID Plan as approved by the City, the volume of stormwater runoff and potential pollution loads in stormwater runoff will be reduced to the maximum extent possible. The Project is designed to meet City regulations regarding construction and operation for the Project. Thus, the Project will comply with City water quality control plans and sustainable groundwater management plans to reduce impact to a less than significant impact level.

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XI. Land Use and Planning – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- City of Industry 2014 General Plan Final EIR (certified June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)

Findings of Fact: The proposed Project involves the demolition of ten (10) existing buildings totaling 164,259 square feet, and the construction of one (1) new industrial warehouse building totaling 205,460 square feet. The underlying General Plan land use designation is Commercial and Employment, and the zoning designation is Industrial (M) and Commercial (C). The Applicant proposes general plan amendment to change the current land use designations from Commercial to Employment, and a zoning code amendment to change the zoning designation from Commercial (C) to Industrial (M). The Project requires a Parcel Map to merge the seven existing parcels into a single 10.9-acre parcel with a land use designation of Employment and a zoning designation of Industrial (M). Additionally, the Project requires the abandonment of the right-of-way and easements for Kaplan Avenue.

Land uses surrounding the site include industrial warehouse uses to the south and west, residential uses to the east, and commercial and residential uses to the north. The community of Valinda (unincorporated Los Angeles County) is located east of Echelon Avenue and north of Amar Road. The Project site is located in the southwest corner of Amar Road and Echelon Avenue which are established roads within the urban, built-up environment of the surrounding area. Upon approval of a general plan amendment and zoning code amendment, the Project is consistent with the land use and zoning designations of the site. Furthermore, the proposed industrial development is consistent with surrounding land uses to the south and west and aligns with the City's role as a hub for industrial and employment growth.

Discussion of Impacts

Would the project:

a) Physically divide an established community?

No Impact: The Project site is fully developed with ten (10) buildings totaling 164,259 square feet that were used for industrial and commercial uses. Uses surrounding the site include industrial warehouses to the south and west, residential uses to the east, and commercial and residential uses to the north. The Project site is located at the southwest corner of Amar Road and Echelon Avenue, which are established public roads in the City. The proposed zone change to Industrial (M), and general plan amendment to Employment are consistent with the surrounding industrial warehouse uses.

The proposed Project includes the demolition of the existing ten (10) industrial/commercial buildings onsite and the construction of one (1) industrial warehouse building totaling 205,460 square feet. Entitlements for the Project include a Parcel Map to merge the existing seven (7) parcels into a single lot totaling 10.09-acre parcel, a general plan amendment and a zoning code amendment. The new 10.09-acre parcel will have a land use designation of Employment and zoning designation of Industrial (M). Additionally, the Applicant proposes to abandon the right-of-way and easements for Kaplan Avenue. The Project site is fully developed with buildings used for commercial and industrial uses. Therefore, no established communities exist within the Project site, nor does the Project propose or require elements or operations that would divide an off-site community. Based on the preceding, the Project would not physically divide an established community and no impact would occur.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact: As stated above in subsection (a), the Project involves a general plan amendment, zoning code amendment, the construction of an industrial warehouse, a Parcel Map to merge the existing seven (7) parcels, and the abandonment of the right-of-way and easements for Kaplan Avenue. The Project site's current General Plan Land Use designation is Employment and Commercial. The Project would involve a general plan amendment to change the land use designation from Commercial to Employment for two (2) of the seven (7) parcels. Upon approval of a general plan amendment by the City, the Project will be consistent with the General Plan. Furthermore, the Project would be consistent with the vision of the General Plan, as industrial districts are a key component of the City's goal for creating and maintaining an ideal setting for distribution and industrial facilities. The Project would be subject to the development standards set forth in the City's Code, and the City's design guidelines. Furthermore, the Project's floor area ratio (FAR) would be under the 0.5 value stipulated by the General Commercial designation, and as such would be consistent with the General Plan's required standard. Therefore, the Project has a less than significant impact to conflict with any applicable land use plan, policy, and/or regulation.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. 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?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Los Angeles County General Plan Update 2035
- California Department of Conservation, Mineral Land Use Classification

Findings of Fact: The City does not designate any land uses within its jurisdiction for mineral resources, nor does the City delineate any resource recovery sites. The Project site has a General Plan land use designation of Employment and Commercial and is zoned Industrial (M) and Commercial (C). According to the California Geological Survey and the State Mining and Geology Board, no areas within the City are designated as mineral areas. Mineral Land Classification (MLC) studies are produced by the State Geologist as specified by the Surface Mining and Reclamation Act (SMARA, PRC 2710 et seq.) of 1975. To address mineral resource conservation, SMARA mandated a two-phase process called classification-designation. Classification is carried out by the State Geologist and designation is a function of the State Mining and Geology Board. The Project site is not designated on a SMARA mineral resource zone map. The Project site is located within the SMARA Study Area 143-4, San Gabriel Valley Production-Consumption Region for Sand and Gravel Resources Areas.

Discussion of Impacts

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-b) **No Impact:** The Project site is not designated as an area of known mineral resources according to the City's General Plan, and is considered to be an area where geologic information indicates that little likelihood exists for the presence of significant mineral resources, according to the California Geological Survey. Additionally, there are no resource recovery sites delineated within the City boundaries, Project vicinity or surrounding areas. Therefore, the Proposed project would not result in the loss of availability of locally important mineral resources and therefore would have no impact.

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XIII. Noise – Would the project result in:				
a) Generation of a substantial, temporary, or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

<u>Sources:</u>

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- U.S. Department of Transportation. Federal Highway Administration. Construction Noise Handbook. Chapter 9.0 “Construction Equipment Noise Levels and Ranges.”
- Los Angeles County A-NET
- Preliminary Assessment of Environmental Noise, Amar Road Development, City of Industry, CA CEQA Noise Report. Veneklasen Associates, Inc. August 16, 2023. (Appendix J)

<u>Findings of Fact:</u> The City is an industrial suburb of Los Angeles and serves as an economic hub for the surrounding region. The City is located along Highways 60 and 57 as well as the 605 Freeway. Thus, the City is impacted by a variety of existing noise sources related to the existing industrial and commercial uses in the area and from vehicular traffic from surrounding freeways and roadways. The Project site is located on Amar Road which is classified as a Major Highway on *Figure 5: Roadway Classification Plan* of the General Plan.

As noted in the Preliminary Assessment of Environmental Noise prepared by Veneklasen Associates, Inc. dated August 16, 2023 (see Appendix J), residential properties are located east of Echelon Avenue and north of Amar Road within Valinda (unincorporated Los Angeles County). All other surrounding properties are developed with industrial and storage land uses. The Project site is currently developed with ten (10) commercial and industrial buildings totaling 164,259 square feet. The Project proposes to demolish the existing structures and construct one (1) industrial warehouse building totaling 205,460 square feet and is expected to operate 24 hours a day, 7 days a week.

According to the Land Use Compatibility figure of the City's General Plan, the normally acceptable community noise equivalent level (CNEL) for office and commercial land uses is 70 CNEL (dBA) range. The conditionally acceptable CNEL for office and commercial land uses is the 68-78 CNEL (dBA) range. The Los Angels County Code Section 12.08.390 identifies a maximum acceptable exterior noise level for commercial properties to be 60 dBA between the hours of 7:00 am – 10:00 pm, and 55 dBA between the hours of 10:00 pm – 7:00 am for commercial properties. According to the Construction Noise handbook, prepared by the Federal Highway Administration, at a distance of 50 feet, some heavy construction equipment can produce noise levels above 80 A-weighted decibels (dBA).

Discussion of Impacts

Would the project result in

a) Generation of a substantial, temporary, or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact with Mitigation Incorporated: The Project site is bounded by Amar Road to the north and Echelon Avenue to the west, with surrounding land uses including residential, commercial, and industrial. Traffic from Amar Road and Echelon Avenue are the primary source of noise in the general area of the Project site. The Project is located within the Commercial (C) and Industrial (M) zones and is identified within the 70 dBA CNEL noise contour zone. The Project proposes to demolish ten (10) existing industrial buildings totaling 164,259 square feet, and construct one (1) new industrial buildings totaling 205,460 square feet to be used as an industrial warehouse. Industrial land uses such as the Project are considered normally acceptable with exterior noise levels below 70 dBA CNEL, and conditionally acceptable with noise levels below 78 dBA CNEL.

The Preliminary Assessment of Environmental Noise by Veneklasen Associates (Appendix J) was prepared using the applicable City standards and thresholds of significance based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. To establish existing ambient noise level conditions in the areas surrounding the Project site, a field monitoring study was conducted at the locations shown in Figure 13-1 on November 17, 2022. The weather conditions were clear, and no anomalies were present during the survey periods. The ambient monitored noise levels for position L1 on Amar Road were measured at CNEL 65 dBA, and CNEL 60 dBA for position L2 on Echelon Avenue (Appendix J).

Figure 13-1 Existing Ambient Noise Monitoring Locations

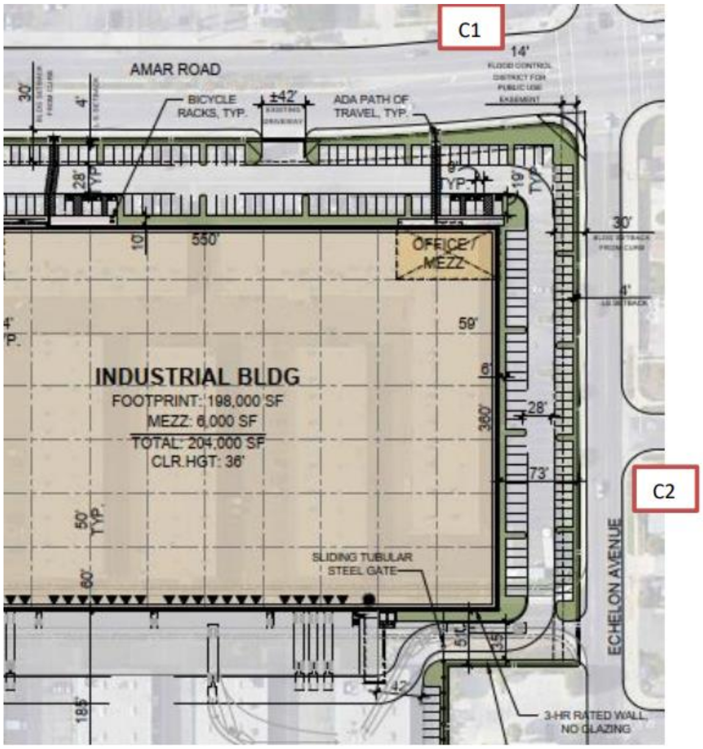
Source: Preliminary Assessment of Environmental Noise, Veneklasen Associates, 2023 (Appendix J)

Construction Related Impacts

Neither the City’s General Plan nor County Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise sensitive residential land use (Appendix J).

Construction of the Project will generate temporary noise levels at the property line of the Project site. Construction noise levels will vary due to each stage of construction requiring a specific equipment mix, depending on the work to be completed. As a result of the equipment mix, each stage has its own noise characteristics; some stages have higher continuous noise levels than others, and some have higher impact noise levels than others. Project construction activities are expected to occur in the following stages: demolition, site preparation, grading, building construction, paving, and architectural coating. Table 13-1 presents the noise levels for construction equipment measured at two (2) construction noise receptor locations located at the northeast corner of the Amar Road and Echelon Avenue intersection (C1), and east of Echelon Avenue (C2), see Figure 13-2.

Figure 13-2 Construction Noise Receptor Locations



Source: Preliminary Assessment of Environmental Noise, Veneklasen Associates, 2023 (Appendix J)

Table 13-1 Construction Reference Noise Levels

Construction Stage	Reference Construction Equipment	Quantity	Reference Sound Pressure Level at 50 ft.	Receptor C1		Receptor C2	
				Dist. (ft)	SPL	Dist. (ft)	SPL
Demolition and Grading	Excavator	1	85	180	70	130	73
	Excavator	1	85	280	66	240	67
	Excavator	1	85	280	66	240	67
	Excavator	1	85	350	64	340	64
	Skid steer	1	80	180	69	130	72
	Wheel loader	1	80	280	65	240	66
	Scraper	1	87	280	68	240	70
	Dozer	1	85	280	66	240	67
	Sweeper	1	82	180	61	130	64
	Dump Truck	1	84	280	65	240	66
Total SPL (dBA)				**77**		**79**	
	Loader	1	80	280	65	240	66
	Forklift	1	85	280	63	240	64

Foundation and Building Construction	Generator	1	82	180	68	130	71
	Compressor	1	82	280	63	240	64
	Back-hoe	1	82	280	63	240	64
	Haul Truck	1	88	180	77	130	74
	Concrete Truck	1	85	280	66	240	67
			Total SPL (dBA)	**78**		**78**	

Source: Preliminary Assessment of Environmental Noise, Veneklasen Associates, 2023 (Appendix J)

As shown in Table 13-1 above, modeled unmitigated construction noise levels reached up 79 dBA Leq,. To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA Leq is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA Leq significance threshold during Project construction activities with a maximum noise level of 79 dBA Leq, as shown on Table 13-2. Therefore, the noise impacts due to Project construction noise are considered less than significant at all receiver locations.

Table 13-2 Construction Level Compliance

Receiver Location	**Construction Noise Levels (dBA L_{eg})**		
	8-hour sound level (Leq)	**Threshold[3]**	**Threshold Exceeded?**
Demolition and Grading Phase			
C1	77 dBA	80	No
C2	79 dBA	80	No
Foundation and Building Construction			
C1	78 dBA	80	No
C2	78 dBa	80	No

Source: Preliminary Assessment of Environmental Noise, Veneklasen Associates, 2023 (Appendix J)

Operation Related Impacts

The Project is expected to be operational 24 hours a day, 7 days a week as an industrial warehouse. Consistent with similar warehouse and industrial uses, the Project's business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, and the loading and unloading of trucks at designated loading bays. Potential noise impacts associated with the operations of the Project will be a result of loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements. Loading docks are proposed along the south side of the building and are expected to be a major source of operational noise. To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. Table 13-3 presents the projected noise levels assuming the worst-case noise environment for loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements all operating at the same time.

Table 13-3 Operational Reference Noise Level Measurements

Events	Elevation (ft)	Sound Power Level (dBA)	Duration
Rooftop Mechanical			
Air Conditioning units	48	95	Continuous
Exhaust fans	48	82	Continuous
Loading Dock			
Truck driving off	12	104	1 min
Truck exiting area	12	105	15 sec
Truck idling	12	105	5 min
Truck back-up	12	107	30 sec
Loading dock – pull-in	4	108	1 min
Loading dock – door slam	4	116	2 sec

Source: Preliminary Assessment of Environmental Noise, Veneklasen Associates, 2023 (Appendix J)

To analyze the potential noise impacts from the loading docks, a typical loading dock event was defined using the assumptions shown in Table 13-3. Utilizing these assumptions, the hourly noise level will depend on the number of loading dock events per hour. It is estimated that around 13 percent of the Project trip generation may be made by medium and heavy trucks, or approximately 48 daily trips. If spread evenly through daytime and evening hours, this is about three (3) truck trips per hour. To present the potential worst-case scenario noise conditions, the Preliminary Assessment of Environmental Noise analysis used six (6) loading dock events per hour to allow for circumstances where a greater than average number of trucks arrive in an hour (Appendix J).

The Project includes an 8-foot-tall concrete wall around the perimeter of the site with a tubular steel gate at the east end of the loading dock off of Echelon Avenue. East of Echelon Avenue are single-family residences located within the community of Valinda, in unincorporated Los Angeles County. The Los Angels County Code Section 12.08.390 identifies noise standards for residential properties between the hours of 7:00 am-10:00 pm as 50 one-hour average, and 45 one-hour average between the hours of 10:00 pm – 7:00 am. The Preliminary Assessment of Environmental Noise (Appendix J) analyzed noise impacts at four (4) noise receptors east of Echelon Avenue utilizing varying versions of the gate at different heights, see Figure 13-3. As shown in Table 13-4, exterior noise levels exceed the 50 dBA Leq threshold of significance depending on the material and height of the gate. Therefore, the Project will implement Mitigation Measure **NOI-1**, as set forth below, and install a solid, 8-foot-high gate to reduce noise impacts to below the 50 dBA Leq significance level.

Figure 13-3 Operational Noise Model Receivers

Source: Preliminary Assessment of Environmental Noise, Veneklasen Associates, 2023 (Appendix J)

Table 13-4 Operational Noise Model Results

Location	**Exterior Noise Levels dBA Leq**		
	Tubular Gate	**Solid Gate, 6 ft.**	**Solid Gate, 8 ft.**
R1	50	50	50
R2	54	51	50
R3	50	49	48
R4	47	47	47
Threshold of Significance	**50**	**50**	**50**
Exceeded?	**YES**	**YES**	**NO**

Source: Preliminary Assessment of Environmental Noise, Veneklasen Associates, 2023 (Appendix J)

Exterior noise levels as a result of Project implementation will cause an increase in the ambient noise level at the site. The calculated hourly noise level with implementation of Mitigation Measure **NOI-1** for the worst-case condition (i.e., 50 dBA) was added to the existing hourly noise level and the resultant CNEL was calculated. This is a conservative estimate as the hourly noise level from operational noise was calculated using a greater than average number of trucks, and for most hours the operational noise would be lower. The calculated increase in CNEL was 0.9 dBA, which is less than the threshold of significance of 3 dBA. Therefore, with mitigation incorporated a less than significant impact would occur.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact: Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. At distances ranging from 130 to 280 feet from Project construction activities, construction vibration velocity levels are estimated to range from 0.005 to 0.008 in/sec PPV. Based on maximum acceptable continuous vibration damage threshold of 0.2 PPV (in/sec), the typical Project construction vibration levels will fall below the building damage thresholds at all the noise receiver locations. Additionally, the vibration levels reported at the receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter. Therefore, the Project-related vibration impacts are considered less than significant during typical construction activities at the Project site.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than Significant Impact: The closest heliport is the LA County Sheriff's Department Heliport located approximately 1.45 miles southwest, followed by the Los Altos Food Products Heliport approximately 3.5 miles northwest of the Project site. The San Gabriel Valley Airport is the closest airport located approximately 6.5 miles northwest of the Project site in the City of El Monte. Though the Sheriff's Heliport in the City does not have a specific land use compatibility plan, it is subject to the general policies and criteria of the Los Angeles County Airport Land Use Plan (ALUP). The ALUP identifies <70 dBA CNEL as "Satisfactory" for industrial uses. The Project site is located in the Industrial (M) zone which has a 70 dBA CNEL noise contour threshold according to the General Plan. Furthermore, the proposed Project would be utilized as an industrial warehouse. Thus, the Project is consistent with the ALUP. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels from airports. A less than significant impact would occur.

Mitigation Measures

XVIII (a)

NOI-1 The screen wall and sliding gate shown at the east side of the loading dock area shall be solid, without holes, slats, or gaps, and shall be a minimum of 8 feet high. The gate shall remain closed when vehicles are not passing through it.

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XIV. Population and Housing – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- City of Industry 2014 General Plan Final EIR (certified June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)

Findings of Fact: The Project site is currently developed with ten (10) existing buildings totaling 164,259 square feet that are currently used for industrial and commercial uses. The proposed Project will replace these buildings with one (1) industrial warehouse building totaling 205,460 square feet. The Project consists of five (5) parcels zoned Industrial (M) and two (2) parcels zoned Commercial (C). The Applicant proposes a Parcel Map to merge the seven (7) parcels into one single 10.09-acre parcel, and a zoning code amendment to rezone parcels zoned Commercial to Industrial. The change in land use and zoning is compatible with the surrounding industrial uses: north of the Property is a mix of residential and commercial uses in the community of Valinda in the jurisdiction of unincorporated Los Angeles County, west of the Property is an 87,000 square feet public storage facility, south of the Property are industrial businesses including an HVAC supply company, and east of the Project site is a pet supply store and single family residences in the jurisdiction of unincorporated Los Angeles County. Given that the geographic area is surrounded by industrial and storage uses to the south and west, the proposed industrial warehouse is compatible with the overall area.

Discussion of Impacts

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant Impact: The CEQA Guidelines Section 15126.2(e) states growth-inducing impacts are not assumed to be beneficial, detrimental, or of little significance to the environment, but that a proposed project should be assessed on how it could foster economic growth or population growth, or the construction of additional housing, either directly or indirectly. The most immediate presence of potential growth related to the proposed Project would be the labor force associated with the construction and operation of the industrial facility. The proposed building is expected to operate as an industrial warehouse 24 hours a day, seven (7) days a week. Project operation is estimated to include a total of 464 employees with approximately three (3) shifts per day, and an estimated one hundred (100) employees per shift. Section 1.5.1 of the City's General Plan, "A Hub for Regional Business and Employment" indicates that 70% of people working in the City live in the nearby communities of the East San Gabriel Valley, South San Gabriel Valley, Upper San Gabriel Valley, and Whittier. Since the Project site is in an urban and built-up area, the labor force associated with the construction and operation of the proposed Project would likely be comprised of persons from the surrounding and existing workforce within the area. The Project does not propose any residential dwelling units and would not result in direct or indirect population growth. Therefore, potential impacts associated with unplanned population growth would be less than significant and no mitigation would be required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact: The Project would replace existing industrial and commercial buildings and would be developed on a site that is currently occupied. The Project would not require the removal of existing housing or people. Therefore, the proposed Project will have no impact on displacing existing housing or people.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. 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 public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- City of Industry 2014 General Plan Final EIR (certified June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Hacienda La Puente Unified School District, About HLPUSD. https://www.hlpschools.org/district/about-hlpusd
- District Profiles, California Department of Education, accessed October 30, 2023. District Profiles

Findings of Fact: The City is served by Battalion 12 of the Los Angeles County Fire Department. Three fire stations are within the City: Fire Station No. 43 on Stimson Ave, Fire Station No. 87 on 2nd Ave., and Fire Station No. 118 on Gale Ave. The City is also served by stations in neighboring communities via mutual aid agreements. The nearest fire station is Los Angeles Department Station No. 26, located in the City of La Puente approximately 0.87 miles west of the Project site. The City is served by the Los Angeles County Sheriff's Department and the City's sheriff station is located at 150 N. Hudson Ave, approximately 1.5 miles southwest of the Project site.

The Project site is located within the boundaries of the Hacienda La Puente Unified School District, which provides public school facilities to accommodate students within its district. The Project site contains a small charter school located at 16030 Amar Road that will be replaced by the Project. The nearest school is Workman High School, which is located 483 feet south of the Project site. The Puente Creek Channel and industrial buildings including a HVAC supply company provide a buffer between the proposed industrial warehouse and the school. Additional surrounding schools include De Valle Elementary School located approximately 0.55 miles southwest of the Project site, and Valinda Middle School located approximately 0.33 miles northeast of the Project site.

Discussion of Impacts

Would the project:

A. 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 rations, response times or other performance objectives for any of the public services:

  i) Fire protection?

  Less than Significant Impact: The Los Angeles County Fire Department will continue to provide fire protection and emergency medical services to the Project site, as well as to the surrounding community. The proposed Project involves the demolition of ten (10) existing buildings totaling 164,259 square feet and the construction of one (1) new industrial warehouse building totaling 205,460 square feet. Based on the increase in building square footage of 41,201 square feet, the proposed Project may result in an incremental increase in demand for fire services, but not to a significant degree. The proposed Project will be constructed to current building code requirements regarding fire suppression and access. Furthermore, the Project will be subject to the review and approval of the Los Angeles County Fire Department. According to the City's General Plan EIR, there are adequate firefighting resources in the region to serve the proposed Project, and construction of a new or expanded fire station would not be required. Therefore, Project impacts would be less than significant.

  ii) Police protection?

  Less than Significant Impact: The Los Angeles County Sherriff's Department provides police protection to the City of Industry and will continue to provide police protection services to the Project site and surrounding community. The Los Angeles County Sheriff's Station is located at 150 N. Hudson Ave, approximately 1.5 miles southwest of the Project site. The subject property is currently developed with ten (10) existing industrial buildings totaling 164,259 square feet. Buildings on the parcels zoned Industrial (M) contain light manufacturing uses, and buildings on the parcels zoned Commercial (C) include a strip mall with various commercial uses.

  The Project would include replacement of the existing structures with one (1) new industrial warehouse building totaling 205,460 square feet that would also include ancillary improvements such as landscaping, trash enclosures, signage, and site lighting. The proposed building is expected to operate as an industrial warehouse 24 hours a day, seven (7) days a week. Project operation is estimated to include a total of 464 employees with approximately three (3) shifts per day, and an estimated one hundred (100) employees per shift. Based on the minor increase in building square footage of 41,201 square feet and 24 hour a day operation, the proposed Project may result in a slight increase in demand for police protection services, but not to a significant degree. Project implementation will not result in the need for construction of new police protection facilities; therefore, a less than significant impact is expected.

  iii) Schools?

  Less than Significant Impact: The Project site is located within the Hacienda La

Puente Unified School District (HLPUSD) which includes seventeen (17) K-5 elementary schools, six (6) K-8 schools, four (4) middle schools, four (4) comprehensive high schools, and one (1) alternative high school. The Project site includes a non-profit public charter school called Options for Youth (OFY) located at 16030 Amar Road. Based on correspondence with a school representative on October 27, 2023, the school currently serves middle through high school aged students (6th-12th grade with a minimum age requirement of 14 years old) and has a total enrollment of 118 students. A large majority of the students live within the HLPUSD service boundaries and a small portion commute from outside of the District. Students displaced by the Project who live within the HLPUSD boundaries would continue to attend middle and high schools within the HLPUSD. Students living outside of the HLPUSD boundaries would attend nearby Rowland Unified School District (RUSD) to the east, and West Covina Unified School District (WCUSD) and Basset Unified School District (BUSD) to the north. *Table 15-1 Schools with Grades 6-12 within 2.5 Miles of the Project Site* lists the schools within the vicinity of the Project site that would serve students displaced by the Project.

Table 15-1 Schools with Grades 6-12 within 2.5 Miles of the Project Site

District	School	Grades Served	Distance from Project Site	Current Enrollment (students)
HLPUSD	William Workman High School	9-12	800 feet	860
	Valinda School of Academics	K-8	0.34 miles	511
	Fairgrove Academy	K-8	0.44 miles	742
	Del Valle Elementary School	K-6	0.62 miles	220
	Sierra Vista Middle School	6-8	0.65 miles	206
	La Puente High School	9-12	1.17 miles	960
	Workman Elementary	K-6	1.16 miles	329
	Sparks Middle School	7-8	1.2 miles	351
	Sparks Elementary School	K-6	1.37 miles	455
	Nelson Elementary School	K-6	1.6 miles	314

	California Elementary School	K-6	1.3 miles	333
	Sunset Elementary School	K-6	1.8 miles	142
WCUSD	Coronado High School	9-12	1.5 miles	112
	Walnut Grove Intermediate School	7-8	1.5 miles	306
	Merlinda Elementary School	K-6	1.5 miles	451
RUSD	Villacorta Elementary School	K-6	1.8 miles	308
	Hurley Elementary School	K-6	1.6 miles	416
	Northam Elementary School	K-6	1.9 miles	375
	Giano Intermediate	7-8	1.9 miles	489
	Santana High Continuation School	9-12	2.5 miles	154
BUSD	Basset Senior High School	9-12	2.2 miles	839
	Nueva Vista Continuation High School	10-12	2.4 miles	44

HLPUSD, RUSD, WCUSD and BUSD don’t have a fixed maximum number of students they can serve as this depends on factors such as enrollment trends, class size, facilities, staffing and funding. However, given the number of schools within a 2.5-mile radius of the Project site, surrounding school districts would have the capacity to accommodate the 118 students displaced by the Project. Furthermore, Project implementation would not create a significant, direct demand for public school services, as the Project includes an industrial warehouse that would not generate any school-aged children requiring public education. The proposed Project is not expected to draw new residents to the region and therefore would not indirectly generate school-aged students requiring public education. As the Project would not directly generate students and is not expected to indirectly draw students to the area, the Project would not cause or contribute to a need to construct new or physically altered public school facilities. Thus, a less than significant impact would occur.

iv) Parks?

No Impact: The proposed industrial building replacement is not expected to impact local recreational areas. The Project does not involve park development or displacement, and the Project would not alter the utilization rate of any nearby parks. Therefore, no impact would occur.

v) Other facilities?

No Impact: Demand for public facilities is generated by the population within a facility’s service area. The Project would not induce population growth and therefore would not create a demand for public facilities/services, including libraries, community recreation centers, post offices, and animal shelters. As such, implementation of the proposed Project would not adversely affect or require the construction of new or modified public facilities. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. 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?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- California Government Code § 66477

Findings of Fact: Although the industrial facility may provide additional jobs, it is not anticipated that the increase in jobs will result in the need for additional recreational spaces. According to the Section 3.2.3 “*Open Space and Recreation Resources”* of the City’s general plan, “[a]s a largely developed, business-oriented City with a limited population, the City of Industry does not serve the recreational needs of a residential base.” Additionally, industrial land uses are not subject to the Quimby Act (California Government Code § 66477), which requires developers to provide a percentage of open space with development projects.

Discussion of Impacts

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-b) **No Impact:** The Project consists of re-developing the Project site with one (1) industrial building, a zone change from Commercial (C) to Industrial (M), a a general plan amendment changing the general plan designation from Commercial to Employment, a Parcel Map to merge the existing seven (7) parcels into a single 10.09-acre parcel, and the abandonment of the right-of-way and easements for Kaplan Avenue. The Project would also include ancillary improvements associated with the industrial warehouse use such as landscaping, trash enclosures, signage, and site lighting. The Project does not include any type of residential use or other land use that may generate a population that would increase the utilization of existing neighborhood and regional parks or other recreational facilities. Accordingly, implementation of the proposed Project would not result in substantial physical deterioration of an existing neighborhood or regional park. The Project does not include any new on- or off-site recreation facilities, nor the expansion of any existing off-site recreational facilities. Thus, environmental effects related to the use, construction, or expansion of recreational facilities would not occur with implementation of the proposed Project. No impact on recreational facilities would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation/Traffic– Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Resolution No CC 2020-20 (...) Adopting Vehicle Miles Traveled Thresholds of Significance for Purposes of Analyzing Transportation Impacts under CEQA. City of Industry. June 25, 2020.
- Memorandum Vehicle Miles of Travel (VMT) Assessment for 15940-16016 Amar Blvd, 15940, 15941, 16000, 16023 & 16040 Kaplan Ave. CNC Engineering. April 5, 2023. (Appendix K)

Findings of Fact: The Project requires a Parcel Map to merge the existing seven (7) parcels into one (1) single 10.09-acre parcel with a zoning designation of Industrial (M) and land use designation of Employment upon approval of a general plan amendment and zoning code amendment by the City. The Project requires the abandonment of the right-of-way and easements for Kaplan Avenue, the demolition of the existing ten (10) buildings totaling 164,259 square feet, and the construction of one (1) industrial building totaling 205,460 square feet. Additional site improvements include repaving of asphalt, 269 parking stalls, installation of walkways, a new driveway entrance on Echelon Avenue, the installation of drought tolerant landscaping, and a biofiltration basin on the south perimeter of the site abutting the Puente Creek Channel. Access to the Project will be provided via the two (2) existing driveways on Amar Road and a proposed driveway on Echelon Avenue. According to *Figure 5: Roadway Classification Plan* of the General Plan, Amar Road is classified as a Major Highway and Echelon Avenue is classified as a Collector Street. The Project site is surrounded by industrial, and storage uses to the west and south. East of Echelon Avenue lies within unincorporated Los Angeles County and consists of single-family residences. North of Amar Road is a mix of commercial businesses and residences and lies within the jurisdictional boundary of unincorporated Los Angeles County in the community of Valinda.

Performance Standards

Beginning July 1, 2020, agencies analyzing the transportation impacts of new projects must now look at a metric known as vehicle miles traveled (VMT) instead of Level of Service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto roads, the project may cause a significant transportation impact. VMT Assessments for the Project were prepared on April 5, 2023, by CNC Engineering (Appendix K).

Senate Bill (SB) 743

Senate Bill (SB) 743 was signed by Governor Brown in 2013 and required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to LOS for evaluating Transportation impacts. SB 743 specified that the new criteria should promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks and a diversity of land uses. The bill also specified that delay-based level of service could no longer be considered an indicator of a significant impact on the environment. In response, Section 15064.3 was added to the CEQA Guidelines beginning January 1, 2019. Section 15064.3, Determining the Significance of Transportation Impacts, states that Vehicle Miles Traveled (VMT) is the most appropriate measure of transportation impacts and provides lead agencies with the discretion to choose the most appropriate methodology and thresholds for evaluating VMT. Section 15064.3(c) states that the provisions of the section shall apply statewide beginning on July 1, 2020.

On June 25, 2020, the City adopted a resolution approving VMT thresholds of significance and VMT screening thresholds of significance for purposes of analyzing transportation impacts under CEQA. One of the three project screening criteria adopted by the City is Transit Priority Area (TPA) screening which identifies Transit Priority zones that are screened out of further VMT analysis due to being within one-half mile of a major transit stop. The San Gabriel Valley Council of Governments (SGVCOG) has developed an online VMT evaluation tool to assess whether a project is screened out from further VMT analysis using either the TPA screening criteria or the Low VMT Area screening criteria. The proposed Project was screened out using the TPA criteria as the Project is within one-half mile of a major transit stop and is therefore in a TPA zone. The Project therefore does not require any additional VMT analysis and impacts are less than significant.

Discussion of Impacts

Would the project:

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less than Significant: Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Currently, the subject property is built-out with ten (10) industrial and commercial buildings totaling 164,259 square feet that were formerly utilized for light industrial and general commercial uses. The proposed Project would replace the existing use with one (1) new industrial warehouse building totaling 205,460 square feet. Direct access to the Project site is provided via one (1) 44-foot-wide driveway and one (1) 42-foot-wide driveway off Amar Rd, and one (1) 35-foot-wide driveway off Echelon Avenue. Access to the Project accommodates truck and passenger vehicles entering and exiting the site.

Construction Related Impacts

The Project is not expected to have significant impacts to the circulation system around the Project site. Construction of the Project would generate additional temporary traffic on the existing area roadway network. These new vehicle trips would include construction workers traveling to the site as well as delivery trips associated with construction equipment and materials. Delivery of construction materials to the site would likely require oversize vehicles that may travel at slower speeds than existing traffic and, due to their size, may intrude into adjacent travel lanes. Additionally, the total number of vehicle trips associated with all construction-related traffic (including construction workers) would temporarily increase VMT traffic volumes traveling on local roadways and intersections.

Once materials are delivered to the site, all construction activities would occur on-site within the existing boundaries. All staging of construction vehicles will occur on site. Lane closures are not anticipated, and no off-site roadway improvements are required or proposed that would have the potential to interrupt area circulation or redirect traffic. As such, Project construction is not anticipated to substantially disrupt area traffic or cause a significant increase in daily traffic on area roadways or at local intersections, thereby adversely affecting existing conditions. Per standard construction procedures, the construction contractor would prepare and implement a traffic control plan to ensure that public safety and emergency access are maintained during the construction phase. The Project will abandon the easements, right-of-way, and sidewalk ingress to Kaplan Avenue. Implementation of the traffic control plan would ensure that existing conditions are not adversely affected or substantially degraded by Project construction. Therefore, construction effects would have a less than significant impact.

Operation Related Impacts

Senate Bill (SB) 743 Consistency

The VMT Analysis for the Project was prepared by CNC Engineering using the SGVCOG online VMT evaluation tool. The City has adopted VMT thresholds and VMT screening thresholds. One of the criteria for a project to be screened out from further VMT analysis is if the project is in a Transit Priority zone located within one half mile of a major transit station. Since the Project is located in a TPA, the Project is screened out and no further VMT analysis is required (Appendix K). Therefore, the Project would have a less than significant impact and would not conflict with SB 743.

Parking Requirements

Section 17.36.060.K of the City's Municipal Code provides that "[t]he number of parking spaces which shall be provided is based upon the square footage of the building which they are intended to serve and the use to which that building is to be put." The number of parking spaces provided for the Project shall be as follows:

Table 17-1 Parking Compliance

Building Floor Area (square feet)	Parking Spaces	Required Parking Spaces
		Building
0-25,000	1 space per 500 sq. ft. of floor area	50
25,000-100,000	50 spaces plus 1 space per 750 sq. ft. of floor area over 25,000 sq. ft.	100

Over 100,000	150 spaces per 1,000 sq. ft. of floor area over 100,000 sq. ft.	104
Total Spaces Required		255
Additional spaces provided		0
TOTAL		**255**
Trailer Parking Stalls Provided (10 feet by 53 feet)		*34*

As illustrated above, the total building area of 205,460 square feet would require 255 parking stalls. The Project includes 203 standard parking stalls and fifty-two (52) compact stalls. Additionally, the Project will include fourteen (14) bicycle racks and thirty-four (34) trailer parking stalls. Thus, the proposed parking for the industrial building complies with the City's Municipal Code. Therefore, impacts related to parking requirements would be less than significant.

Transit and Pedestrian Facilities

The Project is located in an urban, built-up environment and the nearest transit stops to the Project site are located at the Amar Road and Echelon Avenue intersection. The Project would not impede access to these transit stops or surrounding stops. The Project will include sidewalk along the Project frontage on Amar Road and Echelon Avenue, which is consistent with the existing sidewalk at the Project site. Therefore, impacts related to transit and pedestrian facilities would be less than significant.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

No Impact: CEQA Guidelines Section 15064.3 subdivision (b) concerning Vehicle Miles Traveled (VMT) and whether the land use project will generate vehicle miles traveled in excess of an applicable threshold of significance. On June 25, 2020, the City adopted a resolution approving the VMT thresholds of significance for purposes of analyzing transportation impacts under CEQA and notice of exemption regarding the same (City of Industry, 2020). As described above in section "a," the Project parcels are located in a TPA and Low VMT area and would therefore be screened out of preparing a full VMT analysis as per the resolution. The Project would not conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). No impact would occur.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact: The Project is located in the southwest corner of Amar Road and Echelon Avenue. The streets and intersections surrounding the Project are designed to accommodate the anticipated levels of vehicular and pedestrian activity and have historically been accommodating industrial and commercial activities at the Project site. Direct access to the site will be provided by two (2) existing driveways on Amar Road and one (1) proposed driveway on Echelon Avenue. The Project circulation pattern is subject to City review and approval and thus, will conform with local, state, and federal regulations regarding circulation and traffic pattern design. The Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses. No Impact would occur.

d) Result in inadequate emergency access?

Less than Significant Impact: The proposed Project would be compatible with the design and operation of the street network and would not result in any major modifications to the existing circulation features. Vehicular access to the proposed Project will be provided via one (1) 44-foot-wide driveway and one (1) 42-foot-wide driveway off Amar Road, and one (1) 35-foot-wide driveway off Echelon Ave. Access features are subject to and must satisfy City design requirements and would be subject to approval by the City. Additionally, the Los Angeles County Fire Department and Los Angeles Sanitation District will be consulted to ensure the necessary fire prevention and emergency response features are built into the project. Therefore, the Project would not result in inadequate emergency access and impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources – Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Los Angeles County GIS-NET
- California Public Resources Code Section 5020.1(k)

Findings of Fact: As of July 1, 2015, Public Resources Code Sections 21080.1, 21080.3.1, and 21080.3.2 require public agencies to consult with California Native American tribes recognized by the Native American Heritage Commission (NAHC) for the purpose of mitigating impacts to tribal cultural resources. This law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions.

In accordance with Public Resources Code Section 21080.1(d), a lead agency is required to provide formal notification of intended development projects to Native American tribes that have requested to be on the lead agency’s list for receiving such notification. The formal notification is required to include a brief description of the proposed Project and its location, lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation for tribal cultural resources. The City sent out notification to three (3) tribes that are traditionally and/or culturally affiliated with the Project area or have specifically requested notice for all projects within the City. The tribes included in the notification were the Gabrieleño Band of Mission Indians – Kizh Nation, Gabrielino Tongva Tribe, and Soboba Band of Luiseno Indians.

The City received a request for consultation from the Gabrieleño Band of Mission Indians – Kizh Nation. Consultation was conducted on March 14, 2023. The Gabrieleño Band of Mission Indians – Kizh Nation provided mitigation measures on March 16, 2023. The mitigation measures are incorporated in Section V. Cultural Resources and Section XVIII. Tribal Cultural Resources of this Initial Study/Mitigated Negative Declaration (IS/MND).

Discussion of Impacts

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

Less than Significant Impact: The Project site is currently built out with ten (10) industrial buildings totaling 164,259 square feet that were formerly utilized for industrial and commercial uses. The proposed Project would replace the existing use with one (1) new industrial building totaling 205,460 square feet. No Tribal Cultural Resources (TCRs) that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), have been identified or associated with the Project site.

Formal notification of the Project pursuant to AB 52 was provided to the Gabrieleño Band of Mission Indians – Kizh Nation, Gabrielino Tongva Tribe, and Soboba Band of Luiseno Indians by the Lead Agency, the City on January 5, 2023. A request for consultation was received from the Gabrieleño Band of Mission Indians – Kizh Nation (Tribe) during the 30-day comment period. The Tribe provided historical documentation that showed the Project site had been located within the vicinity of a sacred community, adjacent to sacred water courses, and major traditional trade routes. However, the Project site is not listed or eligible for listing in the California Register of Historical Resources as it is a fully developed site and does not meet the criteria for listing of historical resources in the California Register, or in a local register of historical resources. The Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). Therefore, Project impacts would be less than significant.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant Impact with Mitigation Incorporated: The Project does not contain any known resources determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. No historic resources on the Project site are listed in the City of Industry, Resource

Management Element within the General Plan. The Project site is not listed or eligible for listing in the CRHR or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k) as it is a fully developed site and does not meet the criteria for listing. Additionally, the property has been built out and developed as a pump manufacturing, assembly, and maintenance facility.

Formal notification of the Project pursuant to AB 52 was provided to the Gabrieleño Band of Mission Indians – Kizh Nation, Gabrielino Tongva Tribe, and Soboba Band of Luiseno Indians by the Lead Agency, the City on January 5, 2023. A request for consultation was received from the Gabrieleño Band of Mission Indians – Kizh Nation (Tribe) during the 30-day comment period. The Tribe provided historical documentation that showed a sacred Community, sacred water courses, and major traditional trade routes within the general vicinity of the Project site. Therefore, it is possible that TCRs exist at depth given the prehistoric occupation of the region. TCRs may still be uncovered during grading activities. Consequently, the Tribe provided Mitigation Measures **TCR-1, TCR-2,** and **TCR-3**, as set forth below, that will be incorporated during Project construction.

Although, it is not anticipated that unknown TCRs exist on-site, Mitigation Measures **TCR-1, TCR-2,** and **TCR-3** are identified to ensure that a Native American Monitor is on-site prior to any "ground-disturbing activity." In the event that unanticipated resources are encountered, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. Additionally, if Native American human remains and/or grave goods are discovered or recognized on the Project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. Therefore, project impacts would be less than significant with mitigation incorporated.

Mitigation Measures

Mitigation:

XVIII. (b)

TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

A. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of grounddisturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.

D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funery/Non-Ceremonial)

A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

TCR-3: Unanticipated Discovery of Human Remains and Associated Funery or Ceremonial Objects

A. Native American human remains are defined in PRC 5097.98(d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.

C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).

D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.

E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems – Would the project:				
a) Require or result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which 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?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- City of Industry 2014 General Plan Final EIR (certified June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- Los Angeles County Sanitation Districts (LACSD), Wastewater (Sewage) Facilities
- 2020 Urban Water Management Plan Suburban Water Systems (UWMP). June 2021.
- 2022 California Gas Report. California Gas and Electric Utilities. 2022
- Estimated Solid Waste Generation Rates. California Department of Resources Recycling and Recovery (CalRecycle). 2019a.
- Frequently Asked Questions. California Department of Resources Recycling and Recovery (CalRecycle). 2019b.

Findings of Fact: The Project site is currently built-out with ten (10) industrial buildings totaling 164,259 square feet that were formerly utilized for industrial and commercial uses. The proposed Project would replace the existing use with one (1) new industrial building totaling 205,460 square feet. The Project consists of minor infrastructure improvements such as a

10’-wide sewer easement and 10’-wide public water easement off Echelon Avenue, and replacement of on-site sewer service, domestic water service, fire sprinkler service, and electrical service from existing public utilities on Amar Road and Echelon Avenue.

Domestic Water

The Project site is located in the service boundaries of Suburban Water Systems, San Jose Hills Service Area. Suburban utilizes locally produced groundwater from the Main San Gabriel Groundwater Basin to provide potable water to the San Jose Hills Service Area and additionally supplies the Whittier/La Mirada Service Area with Central Basin groundwater. Suburban also has the ability to deliver imported water through a connection with the Metropolitan Water District of Southern California, as well as emergency interconnections with several surrounding water agencies to ensure the reliability of its water supply (UWMP, 2020). Suburban’s water supply sources include groundwater pumped from the Main San Gabriel Basin and Central Basin; treated, imported surface water purchased from Metropolitan Water District of Southern California through Central Basin Municipal Water District (CBMWD), Three Valleys Municipal Water District (TVMWD), Upper San Gabriel Valley Municipal Water District (USGVMWD); and recycled water purchased from USGVMWD for landscape irrigation. Suburban’s main source of water supply is groundwater pumped from the Main San Gabriel Basin (UWMP, 2020). According to the 2020 Urban Water Management Plan (UWMP), the Basin has not experienced water supply constraints or deficiencies. The UWMP shows that the Basin’s base years for average, single dry, and multiple dry years are sufficient in meeting historical water demands.

Wastewater Treatment

The Los Angeles County Sanitation District (LACSD) Wastewater Ordinance requires any business that desires to discharge industrial wastewater to the Districts’ sewage system to first obtain an industrial wastewater discharge permit. The LACSD provides wastewater treatment for much of Los Angeles County including the Project site. Wastewater from the Project site is treated at the San Jose Creek Water Reclamation Plant (SJCWRP) in unincorporated Los Angeles County, near the western boundary of the City of Industry. The SJCWRP serves a population of approximately 1,000,000 people. SJCWRP treats approximately 100 million gallons of wastewater per day, of which 42 million gallons per day are reused at over 130 sites (LACSD Wastewater).

Solid Waste

Assembly Bill (AB) 939, the Integrated Waste Management Act, requires that every California city divert 50 percent of its waste from landfills by the year 2000, and the City is meeting or exceeding these requirements. Under AB 939, local jurisdictions are required to develop source reduction, reuse, recycling, and composting programs to reduce the amount of solid waste entering landfills. Local jurisdictions are mandated to divert at least 50% of their solid waste generation into recycling. The Project would be required to submit plans to the Public Works Department for review and approval to ensure the plan would comply with AB 939. In addition, the state has set a goal of 75% recycling, composting, and source reduction of solid waste by 2020. To help reach this goal, the state has adopted AB 341 and AB 1826. AB 341 is a mandatory commercial recycling bill, and AB 1826 is mandatory organic recycling.

Electric Power

Southern California Edison (SCE) provides electricity to the site. Anticipated electric power uses include indoor lighting, electric vehicle charging, office appliances, perimeter lighting, and security systems. All electrical uses associated with the Project would connect to the existing electric power system.

Natural Gas

Natural gas is provided to the site by Southern California Gas (SoCalGas) and would supply the proposed facility as well. Natural gas is often used for Heating Ventilation and Air Conditioning (HVAC) systems and hot water heaters. SoCalGas's 2022 California Gas Report (CGR) projects the total system demand to decline at an annual rate of 1.5% between 2022 and 2035.

Discussion of Impacts

Would the project:

a) Require or result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact:

Water Demand Impacts

The Project site is currently developed with ten (10) buildings totaling 164,259 square feet that were formerly utilized for industrial uses and a commercial strip mall. The proposed Project would replace the existing use with one (1) new industrial warehouse building totaling 205,460 square feet. The existing Kaplan Water Main will be vacated as Kaplan Avenue will be abandoned. Water to the Project site will be provided via the existing Amar Road Water Main which and Echelon Avenue Water Main which will be relocated and re-connected. Water demands from the proposed Project will be similar to other industrial land uses, including the former use on the Project site. Therefore, Project water demands will not result in the relocation or construction of new or expanded water facilities, a less than significant impact would occur.

Wastewater Treatment Impacts

The Los Angeles County Sanitation Districts provide wastewater treatment services to the City. Wastewater generated on the Project site would be transported to the San Jose Creek Water Reclamation Plan (SJCWRP) located in unincorporated Los Angeles County, near the western boundary of the City of Industry. SJCWRP is required to comply with treatment requirements specified in the NPDES permits issued by the Regional Water Quality Control Board (RWQCB). The Project would generate similar types and amounts of municipal wastewater that are currently generated throughout the City by other industrial land uses, including the former use on the Project site. The Project will implement a Low Impact Development (LID) Plan ensuring that the Project will not violate any water quality standards or waste discharge requirements. With the implementation of the Stormwater Quality Control Measures outlined in the LID Plan, the Project would not require a unique wastewater treatment process or result in the relocation or construction of new or expanded wastewater treatment facility. A less than significant impact would occur.

Electric Power Impacts

Southern California Edison (SCE) provides electricity to the site. The site was previously developed with industrial uses and a commercial strip mall. Project power uses are anticipated to include indoor lighting, office appliances, perimeter lighting, and security systems. All electrical uses associated with the Project would connect to the existing electric power system. Further, all utility connections to the proposed Project would be required to comply with applicable federal, state, and local regulations related to electric power supply. Therefore, relocation and expansion of existing facilities and construction of new facilities would not be required. Impacts would be less than significant.

Natural Gas Impacts
Natural gas would be provided by Southern California Gas (SoCalGas). Natural gas would be used for Heating Ventilation and Air Conditioning (HVAC) systems and hot water heaters. SoCalGas's 2022 California Gas Report (CGR) projects the total system demand to decline at an annual rate of 1.5% between 2022 and 2035. Since demand for natural gas is decreasing, Project development would not require SoCalGas to obtain new or expanded electricity or natural gas supplies and impacts would be less than significant.

Telecommunication Facilities Impacts
Various private services, including AT&T, Time Warner, and Frontier Communications, provide telecommunication services to the City, including the Project site. No changes to telecommunication facilities would occur. Therefore, Project development would not require the construction of new or expanded telecommunication facilities. Impacts would be less than significant, and no mitigation measures are necessary.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less than Significant Impact: Suburban Water Systems provides potable and domestic water to the Project area. Suburban receives its water supply from the Main San Gabriel Groundwater Basin (Basin). According to the 2020 UWMP for Suburban Water Systems, the Basin has not experienced water supply constraints or deficiencies. Table 19-1 describes data from the UWMP which shows that Suburban's combined San Jose Hills and La Mirada/Whittier service areas for base years for average, single dry, and multiple dry years are sufficient in meeting historical water demands (UWMP, 2020).

Table 19-1 Multiple Dry Years Supply and Demand Comparison (acre-feet)

		2025	2030	2035	2040	2045
First Year	Supply Totals	55,449	55,449	55,449	55,449	55,449
	Demand Totals	44,062	44,445	44,832	45,223	45,618
	Difference	**11,387**	**11,003**	**10,616**	**10,226**	**9,831**
Second Year	Supply Totals	54,890	54,890	54,890	54,890	54,890
	Demand Totals	44,062	44,445	44,832	45,223	45,618
	Difference	**10,828**	**10,444**	**10,057**	**9,666**	**9,272**
Third Year	Supply Totals	52,513	52,513	52,513	52,513	52,513
	Demand Totals	44,062	44,445	44,832	45,223	45,618
	Difference	**8,451**	**8,068**	**7,681**	**7,290**	**6,895**
Fourth Year	Supply Totals	47,493	47,493	47,493	47,493	47,493
	Demand Totals	44,062	44,445	44,832	45,223	45,618
	Difference	**3,431**	**3,048**	**2,661**	**2,270**	**1,875**
Fifth Year	Supply Totals	56,766	56,766	56,766	56,766	56,766

	Demand Totals	44,062	44,445	44,832	45,223	45,618
	Difference	**12,705**	**12,321**	**11,934**	**11,543**	**11,149**

As illustrated in Table 19-1, the City's water demands that lie within the service boundaries of Suburban Water Systems can be met under multiple dry years. Future water supply will meet projected demand due to diversified supply and conservation measures. Suburban Water Systems has sufficient water resources available to supply water service to the property. Therefore, impacts associated with water supply availability would be less than significant.

c) Result in a determination by the wastewater treatment provider which 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?

Less than Significant Impact: The Los Angeles County Sanitation Districts (LACSD) provides wastewater treatment services to the Project site. Wastewater generated on the Project site would be transported to the San Jose Creek Water Reclamation Plan (SJCWRP) located in unincorporated Los Angeles County. SJCWRP has a design capacity of 100 million gallons of wastewater per day (MGD). SJCWRP serves a population of approximately 1,000,000, and approximately 48 MGD of the reclaimed water is reused at over 170 different reuse sites. The Project would pay applicable sewer connection and service fees, providing funds available for the LACSD wastewater system expansion and maintenance, acting to offset the Project's incremental demands for wastewater collection and treatment services. Upon approval of a general plan amendment and zoning code amendment by the City, the Project proposes a land use that is permitted withing the Industrial (M) Zone and the Employment land use designation, wastewater from the proposed Project is not anticipated to exceed the capacity to the wastewater treatment provider, even when considering existing and cumulative demand. Impacts are expected to be less than significant.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact: Locally generated solid waste is deposited in three (3) LACSD solid waste facilities are located in the City: the Puente Hills Landfill, the Puente Hills Material Recovery Facility (MRF), and the Puente Hills Intermodal Facility (PHIMF). The proposed Project would minutely increase the volume of solid waste generated in the City. Solid waste is collected in the City through a franchise agreement (Ord. 686 § 1 (part) 2002). Valley Vista Services is the City's contracted franchise hauler to support commercial and industrial businesses with meeting the State's recycling requirements. The Project would comply with the Integrated Waste Management Ordinance (Section 8.20) adopted by the City. The Applicant is proposing to construct one (1) new industrial warehouse building totaling 205,460 square feet. Industrial waste, defined in Section 17225.35 of Title 14 of the California Code of Regulations, is not subject to the requirements of the AB 341 regulation (CalRecycle, 2019b). Based on the CalRecycle Industrial Section Generation Rates chart, the Project would generate approximately 6,617 pounds of solid waste per day.

Table 19-2 Estimated Solid Waste Generation

Waste Generation Source	Square Feet	Generation Rate, pounds per day	
		Per square foot	Total
Industrial	193,460	0.0625 pounds	12,091 (lbs/day)
Office	12,000	0.006 pounds	72 (lbs/day)

Source: CalRecycle, 2019b, Estimated Solid Waste Generation Rates (ca.gov)

The Project would consist of one (1) industrial warehouse building which will include 193,460 square feet for warehouse and distribution space with the remaining 12,000 square feet for office space. Commercial solid waste generated at an industrial facility or site, for example paper, plastic, metals, cardboard, etc., could be subject to the requirements of the regulation provided the facility/site generates four or more cubic yards of commercial solid waste per week. The Project would participate in the City's commercial recycling and waste reduction program to comply with AB 939, AB 341 and AB 1826.

The industrial uses proposed by the Project, and solid waste generated by those uses, would not otherwise conflict with federal, state, and local statutes and regulations related to solid waste. Based on the preceding, the potential for the Project to generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals is less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact: The Project would be implemented and operated in compliance with applicable City General Plan Goals and Policies, and would comport with City Zoning regulations—specifically, the Project would comply with local, state, and federal initiatives and directives acting to reduce and divert solid waste from landfill waste streams. As described in section (d) above, the Project would comply with the California Integrated Waste Management Act of 1989 (AB 939) and AB 341 as implemented by the City. The proposed Project is required to comply with all applicable federal, state, County, and City statues and regulations related to solid waste as a standard project condition of approval. Therefore, a less than significant impact would occur.

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XX. Wildfire – If located in or near a State Responsibility Area (“SRA”), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

- City of Industry 2014 General Plan (adopted June 12, 2014)
- Industry Municipal Code (Ord. 385 § 10, 1975)
- California Department of Forestry and Fire Protection. Fire Hazard Severity Zones Map
- Low Impact Development Plan (LID Plan) Hines Industry Hills, 15940-16016 Amar Rd. and 15940-16040 Kaplan Avenue. Ware Malcomb, date prepared September 9, 2022, date revised November 16, 2022. (Appendix H).

Findings of Fact: According to the City’s General Plan, the Project site is not located in a fire hazard severity zone. However, fires can occur in urban environments. Additionally, facilities which contain flammable materials can pose a greater potential for fire risk due to their flammable nature. The Los Angeles County Fire Department (LACFD) provides fire protection services to the City of Industry and maintains a comprehensive inspection program that reduces the potential for accidents. Additionally, the California Fire Code contains fire safety-related building standards that are referenced in other parts of Title 24 of the California Code of Regulation. These standards will be considered when constructing the new facility on the Project site.

Wildland fire protection in California is the responsibility of either the state, local government, or the federal government. The State of California has the primary financial responsibility for the prevention and suppression of wildland fires within State Responsibility Areas (SRA). The SRA forms one large area over 31 million acres to which the State Department of Forestry and Fire Protection (CAL FIRE) provides a basic level of wildland fire prevention and protection services.

Local Responsibility Areas (LRA) include incorporated cities, cultivated agriculture lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local government. CAL FIRE uses an extension of the SRA Fire Hazard Severity Zone model as the basis for evaluating fire hazard in LRA. The LRA hazard rating reflects flame and ember intrusion from adjacent wildlands and from flammable vegetation in the urban area. The Project site is located within a LRA, and the Los Angeles County Fire Department currently provides fire protection and emergency medical services to the City.

Fire Hazard Severity Zones (FHSZ) are identified by Moderate, High and Very High in a SRA, and Very High Fire Hazard Severity Zone (VHFHSZ) in a LRA. The Project site is not located in a SRA or classified as a VHFSZ, as identified in the CAL FIRE FHSZ Map. The nearest FHSZ is a VHFHSZ located approximately 3.3 miles west of the Project site, south of SR-60.

Discussion of Impacts

If located in or near a State Responsibility Area (“SRA”), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact: Wildland fire protection in California is the responsibility of the state, local government, or the federal government. The Project site is not located in a SRA or classified as a VHFSZ within a LRA, as identified in the CAL FIRE FHSZ Map. The emergency response plan in effect in Los Angeles County is the Los Angeles County Operational Area Emergency Response Plan (OAERP) maintained by the County Office of Emergency Management and approved by the County Board of Supervisors in 2012. The proposed Project will not block access to the Project site or to surrounding properties and will not impede the evacuation program. Notification of emergency personnel of impending blockages, detour signs, and a construction plan for traffic would ensure that there would be no impact in the case of emergency evacuation. Furthermore, Project development would not interfere with implementation of the OAERP, and no impact would occur.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than Significant: The Project site is in a relatively flat area, and there are no steep slopes immediately adjacent to the site where high winds can exacerbate wildfire risks. The Project site and surrounding area are characterized by features typical of an urban landscape. Wind patterns across the region are characterized by westerly and southwesterly 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 (Appendix A).

No wildlands exist within the immediate vicinity of the site. Development of the proposed Project would not result in the exposure of Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope and prevailing winds, and impacts would be less than significant.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than Significant Impact: The proposed Project does not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Road improvements, water sources, and utilities already exist on the site, and the Project will be constructed entirely on the previously developed site. The Project consists of minor infrastructure improvements such as a fire water connection to Amar Road, installing six (6) new fire hydrants along the Project frontage, water service, fire sprinkler service, and electrical service from existing public utilities on Amar Road and Echelon Avenue. The proposed Project will comply with federal, state, and local regulations relating to safety, and Project impacts would be less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than Significant Impact: The topography of the Project site is relatively flat with soils that are not susceptible to landslides. The Project site is already developed with existing industrial and commercial structures and the proposed building replacement and ancillary improvements would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Implementation of the proposed Project would increase the infiltration capacity of pervious areas compared to the pre-project conditions. The proposed development includes a bio-filtration basin, underground infiltration chambers, and increases the pervious area of the site, and therefore would not increase the amount of Project runoff. Project implementation will not alter the existing drainage patterns because the proposed drainage pattern for the site has been structured to match existing drainage patterns (Appendix H). Therefore, Project impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. Mandatory Findings of Significance				
a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal 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 which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion of Impacts

a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California History or prehistory?

Less than Significant Impact with Mitigation Incorporated: The proposed Project would not substantially impact any scenic vistas, scenic resources, or the visual character of the area, and would not result in excessive light or glare. The Project site is located within a developed area that contains light industrial uses, and residential and commercial uses. The proposed Project would not significantly impact any sensitive plants, plant communities, fish, wildlife, or habitat for any sensitive species.

As described in Section V. Cultural Resources and XVIII. Tribal Cultural Resources, adverse impacts to historical resources would be less than significant. Construction-phase procedures would be implemented if any cultural, archaeological, or paleontological resources are discovered during grading, consistent with Mitigation Measures **CUL-1** and **TCR-1** through **TCR-3**.

Furthermore, the analysis provided in Section III. Air Quality and VIII. Greenhouse Gas emissions concludes that impacts related to emissions of criteria pollutants, climate change, and other air quality impacts would be less than significant.

Based on the preceding analysis of potential impacts in the responses to Sections I through XX, no evidence is presented that the proposed Project would degrade the quality of the environment. Impacts related to degradation of the environment, biological resources, and cultural resources would be less than significant with mitigation incorporated.

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)?

Less than Significant Impact: Cumulative impacts can result from the interactions of environmental changes resulting from one proposed Project with changes resulting from other past, present, and future projects that affect the same resources, utilities and infrastructure systems, public systems, transportation network elements, air basin, watershed, or other physical conditions. Such impacts could be short-term and temporary, usually consisting of overlapping construction impacts, as well as long-term, due to the permanent land use changes and operational characteristics involved with the proposed Project.

Implementation of the Project, in conjunction with other approved or pending projects in the region, would not result in cumulatively considerable impacts. Where appropriate, the environmental checklist questions above include discussion regarding cumulative impacts of the Project when developed in conjunction with related projects. As concluded throughout the analysis, the proposed Project would include both operation- and construction-related project components whose adherence to applicable regulations would ensure that the Project's incremental contribution would be less than cumulatively considerable. Further, the Project would not achieve short-term environmental goals to the disadvantage of long-term goals. Therefore, cumulatively considerable impacts would be considered less than significant.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact: Based on the analysis of the Project's impacts in the responses to Sections I through XX, there is no indication that this Project could result in substantial adverse effects on human beings. While there would be a variety of temporary adverse effects during construction, these would be less than significant. There are no long-term effects related to traffic, noise, hazardous materials, emissions of criteria pollutants and greenhouse gas emissions, increased demand for water use, wastewater disposal, and electricity use, or increased demand on emergency response services. Environmental effects would result in less than significant impacts. Based on the analysis in this Initial Study, direct and indirect impacts to human beings would be less than significant.

CHAPTER FOUR – MITIGATION, MONITORING, AND REPORTING PROGRAM (MMRP)

Mitigation measures are included within each section of the initial study checklist and are provided below. Table 22-: Mitigation Monitoring and Reporting Program outlines the potential impacts and mitigation measures of the proposed Project and assigns responsibility for the oversight of each mitigation measure. This Table shall be included in all bid documents and included as a part of the Project development.

Table 22-1. Mitigation Monitoring and Reporting Program

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
Biological Resources				
IV. Biological Resources	**BIO-1: Pre-Construction Nesting Bird Survey** If it is not feasible to avoid the nesting bird season (typically January through July for raptors and February through August for other avian species), a qualified biologist shall conduct a pre-construction nesting bird survey for avian species to determine the presence/absence, location, and status of any active nests on or directly adjacent to the Project Site. If active nests are located, the extent of the survey buffer area surrounding the nest should be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and the CFGC, the nesting bird survey shall occur no earlier than 15 days prior to the commencement of construction. In the event that active nests are discovered, a suitable buffer (distance to be determined by the	Applicant and City of Industry	Prior to start of construction	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	biologist) shall be established around such active nests, and no construction within the buffer allowed, until the biologist has determined that the nest(s) is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest).			
Cultural Resources				
V. Cultural Resources	**CUL-1 Inadvertent Archaeological Discovery:** If at any time during excavation/construction of the site, archaeological/cultural resources, or any artifacts or other objects which reasonably appear to be evidence of cultural or archaeological resource are discovered, the Property owner shall immediately advise the City of such, and the City shall cause all further excavation or other disturbance of the affected area to immediately cease.	Applicant and City of Industry	If archaeological/ cultural resources objects are encountered during ground-disturbing activities	Less than Significant
Geology and Soils				
VII. Geology and Soils	**GEO-1 Grading and Construction:** The Project shall incorporate applicable recommendations provided in the Geotechnical Investigation Report prepared by Langan Engineering and Environmental Services, Inc. dated June 8, 2022 (Appendix F). The recommendations are presented in Section 6.0 Geotechnical Design Recommendations and Section 7.0 Construction Considerations of the report under the following subheadings: seismic design	Applicant and City of Industry–approved geotechnical engineer	Prior to start of construction	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	parameters, expansive soil, building foundations, spread footings or continuous footings, lateral resistance, floor slab, flatwork, corrosion considerations, pavement recommendations, utilities, site drainage, site preparation, and engineered fill and compaction criteria (pages 6-13).			
VII. Geology and Soils	**GEO-2 Inadvertent Paleontological Discovery:** In the event that paleontological resources are inadvertently discovered during ground disturbing activities, the qualified paleontologist shall document the discovery as appropriate, evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5.	Applicant and City of Industry	If paleontological resources are encountered during ground-disturbing activities	Less than Significant
Hazards and Hazardous Materials				
IX. Hazards & Hazardous Materials	**HAZ-1** The Project shall incorporate the recommendations provided in the Environmentally Regulated Materials Survey Report prepared by Citadel EHS, dated November 17, 2022 (Appendix E). The recommendations are presented in Section 4.0 Conclusions and Recommendations under the following sub-headings: Asbestos and Lead-Containing Materials (pages 12-15).	Applicant and City of Industry	During construction	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
Tribal Cultural Resources				
XVIII. Tribal Cultural Resources	**TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities** A. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Grounddisturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity. C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-	Applicant and City of Industry	Prior to issuance of a grading permit, during ground disturbing activities, and upon discovery of any tribal cultural resources (TCRs)	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe. D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.			
XVIII. Tribal Cultural Resources	**TCR-2: Unanticipated Discovery of Tribal Resource Objects (Non-Funery/Non-Ceremonial)** A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of	Applicant and City of Industry	If human remains or non-funerary/non-ceremonial objects are encountered	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.		during ground-disturbing activities	
XVIII. Tribal Cultural Resources	**TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects** A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute. B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed. C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).	Applicant and City of Industry	If human remains or funerary or ceremonial objects are encountered during ground-disturbing activities	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.			

CHAPTER FIVE– REFERENCES AND PREPARERS

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5.2 List of Preparers

City of Industry

Dina Lomeli, Contract Senior Planner

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APPENDIX A
Amar and Kaplan Avenue Air Quality and Greenhouse Gas Assessment

URBAN | CROSSROADS

DATE: August 25, 2023
TO: Mandi Needle, CASC Engineering & Consulting
FROM: Haseeb Qureshi
Ali Dadabhoy
Shannon Wong
JOB NO: 15271-02 AQ & GHG Assesment

AMAR & KAPLAN AVE. AIR QUALITY & GREENHOUSE GAS ASSESSMENT

Mandi Needle,

Urban Crossroads, Inc. is pleased to provide the following Air Quality & Greenhouse Gas Assessment for the Amar & Kaplan Ave. (**Project**), which is located at 15940-16016 Amar Road and 15940-16040 Kaplan Avenue in the City of Industry (APNs 8250-001-011, 8250-001-012, 8250-001-013, 8250-001-014, 8250-001-015, 8250-001-016, and 8250-001-017).

PROJECT OVERVIEW

The Project is proposing for the demolition of 10 existing buildings of approximately 164,259 square feet and proposing to construct one new industrial building. The proposed building consists of a 199,460 square-foot footprint with a 6,000 square-foot mezzanine, resulting in a total floor area of 205,460[1] square feet. The building includes 193,460 square feet for warehouse space, 6,000 square feet for office space on the 1st floor, and 6,000 square feet for office space on the 2nd floor. The proposed Project is anticipated to have an opening year of 2025. The Project's Tentative Tract Map is shown as Exhibit 1.

SUMMARY OF FINDINGS

Results of the assessment indicate that the Project would result in a less than significant with respect to air quality, and greenhouse gases.

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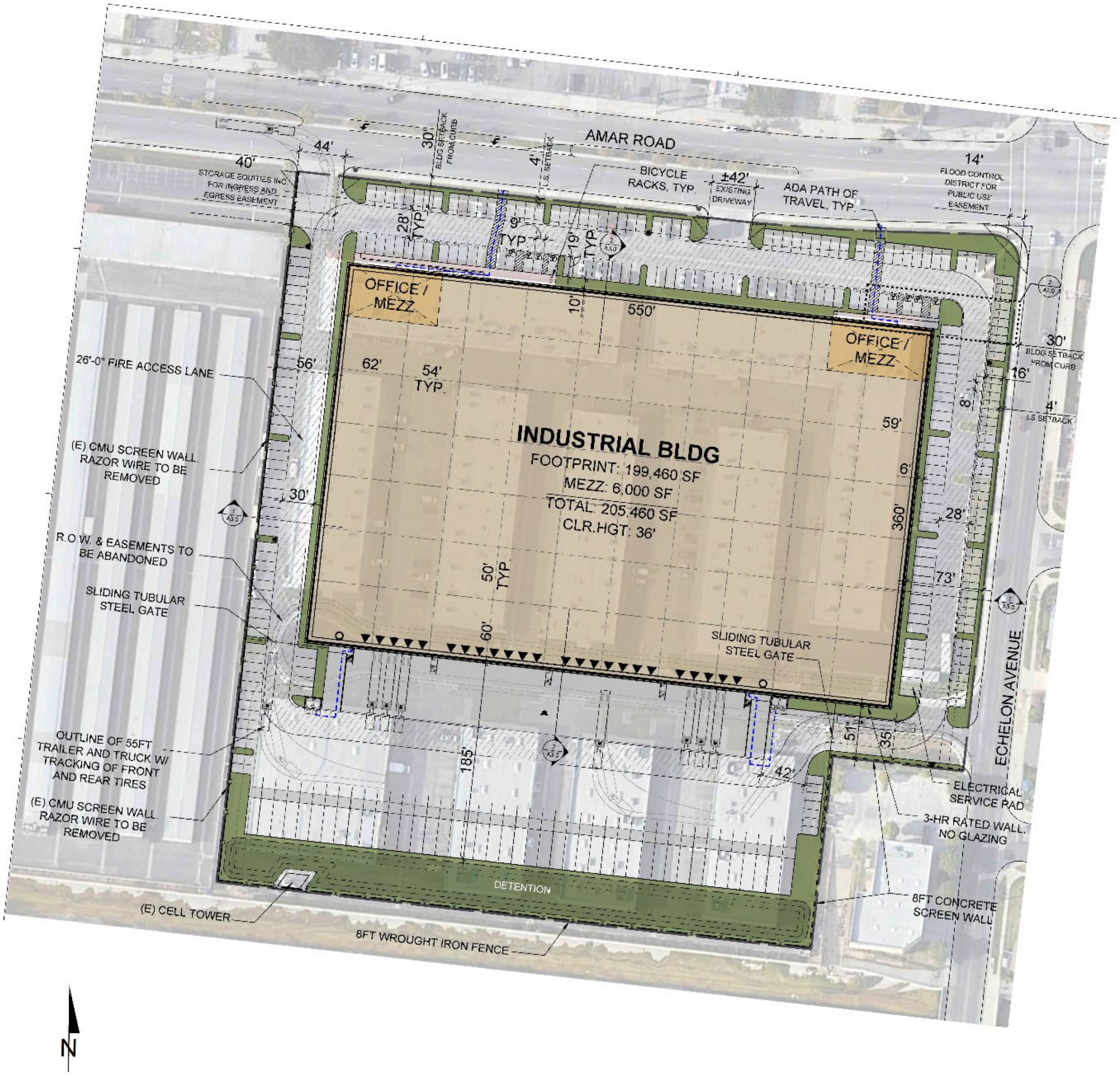
[1] The proposed building square footage utilized in this analysis is based on a previous site plan which assumed a slightly smaller building square footage. Nonetheless, the emissions analyzed in this report would not change and a less than significant impact is expected.

EXHIBIT 1: PROJECT'S TENTATIVE TRACT MAP



PROJECT AIR QUALITY IMPACTS

AIR QUALITY SETTING

SOUTH COAST AIR BASIN (SCAB)

The Project site is located in the SCAB within the jurisdiction of South Coast Air Quality Management District (SCAQMD) (1). 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 previously stated, the Project site is located within the SCAB, 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 SCAB is bounded 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 bounded 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 bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

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 (°F). 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 (SO_2) to sulfates (SO_4) 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% 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% 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 14½ 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 nitrogen oxides (NO_X) and carbon monoxide (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.

Wind Patterns and Project Location

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The SCAB 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 onshore 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.

Criteria Pollutants

Both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O_3) (precursor emissions include NO_X and reactive organic gases (ROG), CO, particulate matter (PM), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The Riverside County portion of the SCAB is designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3, PM_{10}, and $PM_{2.5}$.

Toxic Air Contaminants (TAC) Trend

In 1984, as a result of public concern for exposure to airborne carcinogens, CARB adopted regulations to reduce the amount of TAC 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 (2) 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 (between 1990 and 2012). The seven TACs studied include those that are derived from mobile sources: diesel particulate matter (DPM), benzene (C_6H_6), and 1,3-butadiene (C_4H_6); those that are derived from stationary sources: perchloroethylene (C_2Cl_4) and hexavalent chromium (Cr(VI)); and those derived from photochemical reactions of emitted VOCs: formaldehyde (CH_2O) and acetaldehyde (C_2H_4O)[2]. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

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, and individuals with pre-existing respiratory or cardiovascular illness. Structures that house these persons or places where they gather are defined as "sensitive receptors". These structures typically include uses such as residences, hotels, and hospitals where an individual can remain for 24 hours. Consistent with the LST Methodology, the nearest land use where an individual could remain for 24 hours to the Project site has been used to determine construction and operational air quality impacts for emissions of PM_{10} and $PM_{2.5}$, since PM_{10} and $PM_{2.5}$ thresholds are based on a 24-hour averaging time.

Receptors in the Project study area are described below. All distances are measured from the Project site boundary to the outdoor living areas (e.g., backyards) or at the building façade,

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[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.

whichever is closer to the Project site. Receptors in the Project study area are shown on Exhibit 2 under the Localized Construction Emissions section later in the report.

- Receptor R1 represents the existing residence at 16037 Amar Road, approximately 145 feet north of the Project site.
- Receptor R2 represents the existing residence at 16102 Pocono Street, approximately 85 feet east of the Project site.
- Receptor R3 represents the existing residence at 603 Ranlett Avenue, approximately 1,645 feet south of the Project site.
- Receptor R4 represents the existing residence at 15909 Loukelton Street, approximately 318 feet southwest of the Project site.
- Receptor R5 represents existing residence at 15767 Lawnwood Street, approximately 1,237 feet west of the Project site.
- Receptor R6 represents EZ Cooling HVAC Supply at 15925 Loukelton Street, approximately 65 feet south of the Project site.
- Receptor R7 represents the Public Storage facility at 15920 Amar Road, approximately 25 feet west of the Project site.

REGULATORY BACKGROUND

FEDERAL REGULATIONS

The EPA is responsible for setting and enforcing the national ambient air quality standards (NAAQS) for O_3, CO, NO_X, SO_2, PM_{10}, and lead (Pb) (3). The 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 EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of 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 (4). The CAA also mandates that each state 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) (5) (6). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$.

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 NO_X. NO_X is a collective term that includes all forms of NO_X which are emitted as byproducts of the combustion process.

CALIFORNIA REGULATIONS

CARB

The CARB, which became part of the California EPA (CalEPA) 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. AB 2595 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 California ambient air quality standards (CAAQS) for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO_4, visibility, hydrogen sulfide (H_2S), and vinyl chloride (C_2H_3Cl). However, at this time, H_2S and C_2H_3Cl 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 (7) (8).

Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources such as commercial and 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 (AQMP) 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 5% or more annual reduction in emissions or 15% or more in a period of three years for ROGs, NO_X, CO and PM_{10}. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

AQMP

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMP to meet the state and federal ambient air quality standards (9). 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.

APPLICABLE REGULATORY REQUIRMENTS

SCAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings) (10) (11).

SCAQMD Rule 403

This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent and reduce fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth moving and grading activities. This rule 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.

- Portions of a 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.
- All onsite roads will be paved as soon as feasible or watered periodically or chemically stabilized.
- All material transported offsite will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
- Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.

SCAQMD Rule 1113

This rule serves to limit the volatile organic compound (VOC) content of architectural coatings used on projects in the SCAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the SCAQMD must comply with the current VOC standards set in this rule.

Construction-Source Project Design Feature (PDF)

The Project will implement a Construction Management Plan to ensure that off-road diesel construction equipment rated at 50 horsepower (hp) or greater, complies with Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 off-road emissions standards or equivalent and shall ensure that all construction equipment is tuned and maintained in accordance with the manufacturer’s specifications.

METHODOLOGY

In May 2022, the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of the CalEEMod Version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (12). Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational air quality and greenhouse gas emissions.

Standards of Significance

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the California Environmental Quality Act Guidelines (CEQA Guidelines) (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (13):

- **Threshold 1**: Conflict with or obstruct implementation of the applicable air quality plan.
- **Threshold 2**: 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.
- **Threshold 3**: Expose sensitive receptors to substantial pollutant concentrations.
- **Threshold 4**: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

AIR QUALITY REGIONAL EMISSIONS THRESHOLDS

The SCAQMD has developed regional significance thresholds for criteria pollutants, as summarized at Table 1 (14). The SCAQMD's CEQA Air Quality Significance Thresholds (April 2019) indicate that any projects in the South Coast Air Basin (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 1: MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS

Pollutant	Construction	Operations
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day

lbs/day – Pounds Per Day

AIR QUALITY LOCALIZED EMISSIONS THRESHOLDS

For this Project, the appropriate SRA for the LST analysis is the SCAQMD South San Gabriel Valley Area monitoring station (SRA 11). LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size. The SCAQMD's screening look-up tables are utilized in determining localized impacts. It should be noted that since the look-up tables identify thresholds at only 1 acre, 2 acres, and 5 acres, linear regression has been utilized to determine localized significance thresholds. Consistent with SCAQMD guidance, the thresholds presented in Table 2 were calculated by interpolating the threshold values for the Project's disturbed acreage.

The acres disturbed is based on the equipment list and days in the demolition, site preparation, and grading phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday. The equipment-specific grading rates are summarized in the CalEEMod user's guide, Appendix A: Calculation Details for CalEEMod (15). It should be noted that the disturbed area per day is representative of a piece of equipment making multiple passes over the same land area. In other words, one Rubber Tired Dozer can make multiple passes over the same land area totaling 0.5 acres in a given 8-hour day. Appendix A of the CalEEMod User Manual only identifies equipment-specific grading rates for Crawler Tractors, Graders, Rubber Tired Dozers, and Scrapers; therefore, Tractors/Loaders/Backhoes equipment that was included in the demolition, site preparation and grading phase was replaced with Crawler Tractors. For analytical purposes, emissions associated with peak site demolition, preparation, and grading activities are considered for purposes of localized significance thresholds (LSTs) since this phase represents the maximum localized emissions that would occur. The Project's construction activities could disturb a maximum of approximately 1 acre per day for demolition, 3.5 acres per day for site preparation and 4 acres per day for grading activities. Any other construction phases of development would result in lesser emissions and consequently lesser impacts than what is disclosed herein. As such, Table 2 presents thresholds for localized construction and operational emissions.

TABLE 2: MAXIMUM DAILY LOCALIZED EMISSIONS THRESHOLDS

Source	Activity	Emissions (lbs/day)			
		VOC	NOX	PM_{10}	$PM_{2.5}$
Construction	Demolition	83 lbs/day	673 lbs/day	5 lbs/day	4 lbs/day
	Site Preparation	102 lbs/day	852 lbs/day	6 lbs/day	5 lbs/day
	Grading	108 lbs/day	912 lbs/day	7 lbs/day	5 lbs/day
Operations	N/A	183 lbs/day	1,814 lbs/day	15 lbs/day	9 lbs/day

[1] Source of localized significance threshold (LSTs) is provided on page 19.

CONSTRUCTION ACTIVITIES

Construction activities associated with the Project would result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Construction related emissions are expected from the following construction activities:

- Demolition
- Site Preparation
- Grading (Import/Export)
- Building Construction
- Paving
- Architectural Coating

DEMOLITION ACTIVITIES

The Project site is currently developed with 10 existing structures that will be demolished, resulting in approximately 164,259 square feet of demolished material.

GRADING ACTIVITIES

Dust is typically a major concern during 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.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. The Project would require 18,000 cubic yards of soil export. The CalEEMod default trip length of 20-miles will be used to analyze the emissions associated with export activities.

ON-ROAD TRIPS

Construction generates on-road vehicle emissions from vehicle usage for workers, vendors, and haul trucks commuting to and from the site. Worker and hauling trips are based on CalEEMod defaults. It should be noted that for vendor trips, specifically, CalEEMod only assigns vendor trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for vendor trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to commence in January 2024 and would last through December 2024. The construction schedule utilized in the analysis 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 and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA Guidelines (16).

CONSTRUCTION EQUIPMENT

CalEEMod default parameters for equipment has been used. Consistent with industry standards and typical construction practices, each piece of equipment will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code.

REGIONAL CONSTRUCTION EMISSIONS SUMMARY

The estimated maximum daily construction emissions are summarized on Table 3, and as shown, the Project construction-source emissions would not exceed SCAQMD regional thresholds. Thus, the Project would result in a less than significant impact associated with construction activities. Detailed Construction model outputs are presented in Attachment A.

TABLE 3: REGIONAL CONSTRUCTION EMISSIONS SUMMARY

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
2024	1.09	26.80	40.30	0.10	4.68	1.75
Winter						
2024	52.60	27.10	40.10	0.10	6.00	2.85
Maximum Daily Emissions	**52.60**	**27.10**	**40.30**	**0.10**	**6.00**	**2.85**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

[1] PM_{10} and $PM_{2.5}$ source emissions reflect 3x daily watering per SCAQMD Rule 403 for fugitive dust.

REGIONAL OPERATIONAL EMISSIONS

Operational activities associated with the Project would result in emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Operational related emissions are expected from the following primary sources: area source emissions, energy source emissions, and mobile source emissions.

The proposed Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip generation statistics published in the Institute of Transportation

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[3] As shown in the CalEEMod User's Guide Version 2022.1, Section 4.3 "Off-Road Equipment" 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.

Engineers (ITE) Trip Generation Manual (11th Edition, 2021) for the Warehousing (ITE Land Use Code 150) land use category were utilized in this analysis (17).

To determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length 15.3 miles for 2-axle (LHDT1, LHDT2) trucks, 14.2 miles 3-axle (MHDT) trucks and 39.9 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%. The trip length function for trucks in CalEEMod has been revised to 30.47 miles, with an assumption of 100% primary trips for the proposed industrial land uses.

It is common for warehouse buildings to require the operation of exterior yard trucks or cargo handling equipment (CHE) to move empty containers and empty chassis in the building's truck court areas. The cargo handling equipment is assumed to have a horsepower (hp) range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD (18); for example, warehouse projects typically have 3.6-yard trucks/CHE per million square feet of building space. For this Project, on-site modeled operational equipment conservatively includes up to one (1) 200 horsepower (hp), compressed natural gas or gasoline-powered tractors/loaders/backhoes operating at 4 hours a day[4] for 365 days of the year. Additionally, no outdoor forklifts will be used at the project site.

The estimated operation-source emissions from the Project are summarized on Table 4. Detailed operation model outputs are presented in Attachment B. As shown on Table 4, operational-source emissions would not exceed the applicable SCAQMD regional thresholds for emissions of any criteria pollutant.

TABLE 4: TOTAL PROJECT REGIONAL OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Mobile Source	1.04	12.40	12.50	0.12	2.37	0.64
Area Source	6.12	0.07	8.87	< 0.005	0.01	0.02
Energy Source	0.06	1.06	0.89	0.01	0.08	0.08
On-site Equipment	0.12	0.38	16.44	0.00	0.03	0.03
Total Maximum Daily Emissions	**7.34**	**13.91**	**38.70**	**0.13**	**2.49**	**0.77**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

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[4] Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoes would operate up to 4 hours per day.

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Winter						
Mobile Source	1.03	13.00	11.90	0.12	2.37	0.64
Area Source	4.66	0.00	0.00	0.00	0.00	0.00
Energy Source	0.06	1.06	0.89	0.01	0.08	0.08
On-site Equipment	0.12	0.38	16.44	0.00	0.03	0.03
Total Maximum Daily Emissions	**5.87**	**14.44**	**29.23**	**0.13**	**2.48**	**0.75**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

EXISTING BUILDING OPERATIONAL EMISSIONS

There are 10 existing buildings on the site which is approximately 164,259 square feet. The estimated operation-source emissions from the existing building are summarized on Table 5. Detailed operation model outputs are presented in Attachment D.

The existing Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) for the Warehousing (ITE Land Use Code 150) land use category were utilized in this analysis (17).

To determine emissions from trucks for the existing industrial uses, the analysis incorporated the SCAQMD recommended truck trip length 15.3 miles for 2-axle (LHDT1, LHDT2) trucks, 14.2 miles 3-axle (MHDT) trucks and 39.9 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%. The trip length function for trucks in CalEEMod has been revised to 30.47 miles, with an assumption of 100% primary trips for the existing industrial land uses.

TABLE 5: EXISTING BUILDING REGIONAL OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Mobile Source	0.89	10.60	10.80	0.09	1.91	0.52
Area Source	4.89	0.06	7.14	< 0.005	0.01	0.01
Energy Source	0.05	0.85	0.71	0.01	0.06	0.06
Total Maximum Daily Emissions	**5.83**	**11.51**	**18.65**	**0.10**	**1.98**	**0.59**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Winter						
Mobile Source	0.88	11.10	10.30	0.09	1.91	0.52
Area Source	3.72	0.00	0.00	0.00	0.00	0.00
Energy Source	0.05	0.85	0.71	0.01	0.06	0.06
Total Maximum Daily Emissions	**4.65**	**11.95**	**11.01**	**0.10**	**1.97**	**0.58**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PROJECT NET NEW OPERATIONAL EMISSIONS – COMPARISON TO EXISTING BUILDING

As shown in Table 6, the proposed Project is anticipated to generate slightly more emissions per day for pollutants of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ as compared to emissions generated by the existing building, additionally; the proposed Projects emissions would still be less than the applicable thresholds.

TABLE 6: PROJECT NET NEW REGIONAL OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Proposed Project	7.34	13.91	38.70	0.13	2.49	0.77
Existing Building	5.83	11.51	18.65	0.10	1.98	0.59
Net Emissions (Proposed – Existing)	**1.51**	**2.40**	**20.05**	**0.03**	**0.51**	**0.18**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Winter						
Proposed Project	5.87	14.44	29.23	0.13	2.48	0.75
Existing Building	4.65	11.95	11.01	0.10	1.97	0.58
Net Emissions (Proposed – Existing)	**1.22**	**2.49**	**18.22**	**0.03**	**0.51**	**0.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

LOCALIZED CONSTRUCTION EMISSIONS

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology) (19). 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 SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-45. 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 sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses. It should be noted that SCAQMD also states that Projects that are statutorily or categorically exempt under CEQA would not be subject to LST analyses. Projects exempt from CEQA also include infill projects that meet the H&S Code provisions. As such, although not required for this Project, LST analysis is presented to further underscore that there are in fact no significant impacts associated with the Project.

The SCAQMD recommends that the nearest sensitive receptor be considered when determining the Project's potential to cause an individual or cumulatively significant impact. The nearest land use where an individual could remain for 24 hours to the Project site has been used to determine localized construction and operational air quality impacts for emissions of PM_{10} and $PM_{2.5}$ (since PM_{10} and $PM_{2.5}$ thresholds are based on a 24-hour averaging time). The nearest receptor used for evaluation of localized impacts of PM_{10} and $PM_{2.5}$ is location R2 represented by the existing residence at 16102 Pocono Street, approximately 85 feet (26 meters) east of the Project site. Receptors in the Project study area shown on Exhibit 2.

As previously stated, and consistent with LST Methodology, the nearest industrial/commercial use to the Project site is used to determine construction and operational LST air impacts for emissions of NO_X and CO as the averaging periods for these pollutants are shorter (8 hours or less) and it is reasonable to assume that an individual could be present at these sites for periods of one to 8 hours. The nearest receptor used for evaluation of localized impacts of NO_X and CO is location R7 represented by Public Storage at 15920 Amar Road, approximately 25 feet (8 meters) west of the Project site.

It should be noted that the *LST 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* (19)." As such, for evaluation of localized NO_x and CO, a 25-meter distance will be used.

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[5] The purpose of SCAQMD's Environmental Justice program is to ensure that everyone has the right to equal protection from air pollution and fair access to the decision-making process that works to improve the quality of air within their communities. Further, the SCAQMD defines Environmental Justice as "…equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

EXHIBIT 2: SENSITIVE RECEPTOR LOCATIONS

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,

Table 7 identifies the localized impacts at the nearest receptor location in the vicinity of the Project. Outputs from the model runs for construction LSTs are provided in Attachment A. For analytical purposes, emissions associated with peak demolition, site preparation and grading activities are considered for purposes of LSTs since these phases represents the maximum localized emissions that would occur. Any other construction phases of development that overlap would result in lesser emissions and consequently lesser impacts than what is disclosed herein. As shown in Table 7, emissions resulting from the Project construction will not exceed the numerical thresholds of significance established by the SCAQMD for any criteria pollutant. Thus, a less than significant impact would occur for localized Project-related construction-source emissions and no mitigation is required.

TABLE 7: PROJECT LOCALIZED CONSTRUCTION IMPACTS

On-Site Emissions	Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Demolition				
Maximum Daily Emissions	12.00	18.20	3.78	0.87
SCAQMD Localized Threshold	83	673	5	4
Threshold Exceeded?	NO	NO	NO	NO
Site Preparation				
Maximum Daily Emissions	15.70	30.00	5.76	2.79
SCAQMD Localized Threshold	102	852	6	5
Threshold Exceeded?	NO	NO	NO	NO
Grading				
Maximum Daily Emissions	20.00	36.20	2.93	1.23
SCAQMD Localized Threshold	108	912	7	5
Threshold Exceeded?	NO	NO	NO	NO

LOCALIZED OPERATIONAL EMISSIONS

Table 8 identifies the localized operational impacts at the nearest receptor location in the vicinity of the Project. In an effort to establish a maximum potential impact scenario for analytical purposes, the emissions shown on Table 8 represent all on-site Project-related stationary (area) sources and on-site mobile source emissions. It should be noted that the longest on-site distance is roughly 0.17 miles for both trucks and passenger vehicles. As such, a separate CalEEMod run for operational LSTs has been prepared which accounts for the 0.17-mile on-site travel distance. Outputs from the model runs for operational LSTs are provided in Attachment C. As shown in Table 8, emissions resulting from the Project operation will not exceed the numerical localized thresholds of significance established by the SCAQMD for any criteria pollutant. Thus, a less than significant impact would occur for localized Project-related operational-source emissions and no mitigation is required.

TABLE 8: PROJECT LOCALIZED OPERATIONAL IMPACTS

On-Site Emissions	Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	3.03	29.64	0.15	0.13
SCAQMD Localized Threshold	183	1,814	15	9
Threshold Exceeded?	NO	NO	NO	NO

AIR QUALITY IMPACTS – CONSISTENCY WITH THRESHOLD NO. 1

Would the Project conflict with or obstruct implementation of the applicable air quality plan?

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 SCAB. In response, the SCAQMD has adopted a series of 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.

In December 2022, the SCAQMD released the Final 2022 AQMP (2022 AQMP). The 2022 AQMP continues to evaluate current integrated strategies and control measures to meet the CAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (20). Similar to the 2016 AQMP, the 2022 AQMP incorporates scientific and technological information and planning assumptions, including the 2020-2045 RTP/SCS, a planning document that supports the integration of land use and transportation to help the region meet the federal CAA requirements (21). The Project's consistency with the AQMP will be determined using the 2022 AQMP as discussed below.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the 1993 CEQA Handbook (22). These indicators are discussed below.

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.

The violations that under this criterion refer to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional or localized significance thresholds were exceeded.

CAAQS and NAAQS violations would occur if regional or localized significance thresholds were exceeded. As evaluated, the Project's regional and localized construction and operational-source emissions would not exceed applicable regional significance thresholds. As such, a less than significant impact is expected.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

The 2016 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 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 is considered to be consistent with the AQMP.

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. As such, when considering that no emissions thresholds will be exceeded, a less than significant impact would result.

The City of Industry General Plan designates the Project site as "Commercial" for APNs 8250-001-011 and 8250-001-012 and "Employment" for the remaining five parcels. The zoning designation for the Project site is "Commercial (C)" for APNs 8250-001-011 and 8250-001-012 and "Industrial (M)" for the remaining five parcels (23).

The Project proposes a General Plan Amendment which would change the land use designation from "Commercial" to "Employment" for APNs 8250-001-011 and 8250-001-012. The "Employment" designation allows for a wide range of business and employment uses including industrial manufacturing, assembly, printing, machining, milling, welding research and development, distribution, warehousing, storage, and supporting office uses (23).

The Project proposes a Development Code Amendment to rezone the site from "Commercial (C)" to "Industrial (M)" for APNs 8250-001-011 and 8250-001-012. The "Industrial (M)" designation allows for manufacturing, agriculture, waste management facilities, and storage facilities.

The Project proposes a Parcel Map Application for Tentative Parcel Map No. 083978, which involves merging the seven (7) existing parcels into a single 10.09-acre parcel and will result in the abandonment of the right-of-way and easements for Kaplan Avenue.

The proposed Project includes the development of a 199,460 square-foot footprint with a 6,000 square-foot mezzanine, resulting in a total floor area of 205,460 square feet. The building includes 193,460 square feet for warehouse space, 6,000 square feet for office space on the 1st floor, and 6,000 square feet for office space on the 2nd floor. As previously stated, the Project is inconsistent with the current land use and zoning designation and would require a General Plan and

Development Code Amendment. Although this finding is inconsistent with the current zoning designation, the Project on an individual bases does not have an impact and as such, the proposed Project would not conflict with the goals and objectives of the AQMP. Furthermore, the Project, as evaluated herein would not exceed the regional or localized air quality significance thresholds.

On the basis of the preceding discussion, the Project is determined to be consistent with the AQMP and a less than significant impact is expected.

AIR QUALITY IMPACTS – CONSISTENCY WITH THRESHOLD NO. 2

Would the Project 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?

The CAAQS designate the Project site as nonattainment for O_3, PM_{10}, and $PM_{2.5}$ while the NAAQS designates the Project site as nonattainment for O_3 and $PM_{2.5}$.

The SCAQMD 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 (24). In this report the SCAQMD clearly states (Page D-3):

> *"…the SCAQMD 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 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."*

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 cumulatively considerable increase in emissions for those pollutants for which SCAB 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.

Construction Impacts

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project construction-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, proposed Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

Operational Impacts

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project operational-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, the proposed Project operational-source emissions would be considered less than significant on a project-specific and cumulative basis.

AIR QUALITY IMPACTS – CONSISTENCY WITH THRESHOLD NO. 3

Would the expose sensitive receptors to substantial pollutant concentrations?

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Results of the LST analysis indicate that the Project will not exceed the SCAQMD localized significance thresholds during construction. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during Project construction.

Additionally, the Project will not exceed the SCAQMD localized significance thresholds during operational activity. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations as the result of Project operations.

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 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 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur.

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. 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 9.

TABLE 9: CO MODEL RESULTS

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4	4.5	3.5
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3	3.1	8.4

Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

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, 8.4 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 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (25). In contrast, an adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur.

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 (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (26). Traffic volumes generating the CO concentrations for the “hot spot” analysis is shown on Table 8. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vph and AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively (27). 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).

TABLE 10: CO MODEL RESULTS

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach Boulevard/Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

AIR QUALITY IMPACTS – CONSISTENCY WITH THRESHOLD NO. 4

Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

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 construct ion. 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 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 (28).

PROJECT GHG ANALYSIS

CLIMATE CHANGE SETTING

Global climate change (GCC) is the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this memo cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, this memo 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.

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, CO_2, N_2O, CH_4, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). 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 ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees 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.

For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

REGULATORY SETTING

Executive Order S-3-05

Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.

- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Assembly Bill (AB) 32

The California State Legislature enacted AB 32, which requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "GHGs" as defined under AB 32 include CO_2, CH_4, N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. Pursuant to AB 32, CARB adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 states the following:

"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems."

CARB approved the 1990 GHG emissions level of 427 million metric ton of CO_2 equivalent per year ($MMTCO_2e$) on December 6, 2007 (29). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 $MMTCO_2e$. Emissions in 2020 in a "business as usual" (BAU) scenario were estimated to be 596 $MMTCO_2e$, which do not account for reductions from AB 32 regulations (30). At that level, a 28.4% reduction was required to achieve the 427 MMTCO2e 1990 inventory. In October 2010, CARB prepared an updated BAU 2020 forecast to account for the recession and slower forecasted growth. The forecasted inventory without the benefits of adopted regulation is now estimated at 545 $MMTCO_2e$. Therefore, under the updated forecast, a 21.7% reduction from BAU is required to achieve 1990 levels (31).

Progress in Achieving AB 32 Targets and Remaining Reductions Required

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The progress is shown in updated emission inventories prepared by CARB for 2000 through 2012 (32). The State has achieved the Executive Order S-3-05 target for 2010 of reducing GHG emissions to 2000 levels. As shown below, the 2010 emission inventory achieved this target.

- 1990: 427 $MMTCO_2e$ (AB 32 2020 target)
- 2000: 463 $MMTCO_2e$ (an average 8% reduction needed to achieve 1990 base)
- 2010: 450 $MMTCO_2e$ (an average 5% reduction needed to achieve 1990 base)

CARB has also made substantial progress in achieving its goal of achieving 1990 emissions levels by 2020. As described earlier in this section, CARB revised the 2020 BAU inventory forecast to account for new lower growth projections, which resulted in a new lower reduction from BAU to achieve the 1990 base. The previous reduction from 2020 BAU needed to achieve 1990 levels was 28.4% and the latest reduction from 2020 BAU is 21.7%.

- 2020: 545 $MMTCO_2e$ BAU (an average 21.7% reduction from BAU needed to achieve 1990 base)

Senate Bill (SB) 32

On September 8, 2016, Governor Jerry Brown signed the SB 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature (33).

AB 197

A condition of approval for SB 32 was the passage of AB 197. AB 197 requires that CARB consider the social costs of GHG emissions and prioritize direct reductions in GHG emissions at mobile sources and large stationary sources. AB 197 also gives the California legislature more oversight over CARB through the addition of two legislatively appointed members to the CARB Board and the establishment a legislative committee to make recommendations about CARB programs to the legislature.

Executive Order B-55-18 and SB 100

Executive Order B-55-18 and SB 100. SB 100 and Executive Order B-55-18 were signed by Governor Brown on September 10, 2018. Under the existing RPS, 25% of retail sales are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

Title 24 California Code of Regulations (CCR)

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, industrial, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that was effective on January 1, 2023[6]. As construction of the Project is anticipated to be completed in 2024, the Project would be required to comply with the Title 24 standards in place at that time.

SCAQMD

SCAQMD is the agency responsible for air quality planning and regulation in the SCAB. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the SCAB. The Working Group developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold, that could be applied by lead agencies. The working group has not provided additional guidance since release of the interim guidance in 2008. The SCAQMD Board has not approved the thresholds; however, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
    - Residential and commercial land use: 3,000 metric ton of CO_2 equivalent ($MTCO_2e$/yr)

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[6] The 2022 California Green Building Standard Code will be published July 1, 2022.

  - Industrial land use: 10,000 $MTCO_2e$/yr
  - Based on land use type: residential: 3,500 $MTCO_2e$/yr; commercial: 1,400 $MTCO_2e$/yr; or mixed use: 3,000 $MTCO_2e$/yr
- Tier 4 has the following options:
  - Option 1: Reduce Business-as-Usual (BAU) emissions by a certain percentage; this percentage is currently undefined.
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
  - Option 3: 2020 target for service populations (SP), which includes residents and employees: 4.8 $MTCO_2e$ per SP per year for projects and 6.6 $MTCO_2e$ per SP per year for plans;
  - Option 3, 2035 target: 3.0 $MTCO_2e$ per SP per year for projects and 4.1 $MTCO_2e$ per SP per year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO_2 concentrations at 450 ppm, thus stabilizing global climate.

SCAQMD only has authority over GHG emissions from development projects that include air quality permits. At this time, it is unknown if the project would include stationary sources of emissions subject to SCAQMD permits. Notwithstanding, if the Project requires a stationary permit, it would be subject to the applicable SCAQMD regulations.

SCAQMD Regulation XXVII, adopted in 2009 includes the following rules:

- Rule 2700 defines terms and post global warming potentials.
- Rule 2701, Southern California (SoCal) Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.
- Rule 2702, GHG Reduction Program created a program to produce GHG emission reductions within the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

SCAQMD is the agency responsible for air quality planning and regulation in the SCAB. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

GHG IMPACTS

Standards of Significance

According to the CEQA Guidelines Appendix G thresholds, to determine whether impacts from GHG emissions are significant. Would the project:

- **Threshold 1**: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- **Threshold 2**: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

The evaluation of an impact under CEQA requires measuring data from a project against both existing conditions and a "threshold of significance." For establishing significance thresholds, the Office of Planning and Research's amendments to the CEQA Guidelines Section 15064.7(c) state "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

CEQA Guidelines Section 15064.4(a) further states, ". . . 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."

CEQA Guidelines Section 15064.4 provides that a lead agency should consider the following factors, among others, in assessing the significance of impacts from greenhouse gas emissions:

- **Consideration #1:** The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- **Consideration #2:** Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration #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 reduce or mitigate the project's incremental contribution of greenhouse gas emissions. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

Discussion on Establishment of Significance Thresholds

Based on the foregoing guidance, the City of Industry has elected to rely on compliance with a local air district threshold in the determination of significance of Project-related GHG emissions. Specifically, the City has selected the interim 3,000 MTCO2e per year threshold recommended by SCAQMD staff for residential and commercial sector projects against which to compare Project-related GHG emissions.

The 3,000 MTCO2e per year threshold is based on a 90 percent emission "capture" rate methodology. Prior to its use by the SCAQMD, the 90 percent emissions capture approach was one of the options suggested by the California Air Pollution Control Officers Association (CAPCOA) in their CEQA & Climate Change white paper (2008). A 90 percent emission capture rate means that unmitigated GHG emissions from the top 90 percent of all GHG-producing projects within a geographic area – the SCAB in this instance – would be subject to a detailed analysis of potential environmental impacts from GHG emissions, while the bottom 10 percent of all GHG-producing projects would be excluded from detailed analysis. A GHG significance threshold based on a 90 percent emission capture rate is appropriate to address the long-term adverse impacts associated with global climate change because medium and large projects will be required to implement measures to reduce GHG emissions, while small projects, which are generally infill development projects that are not the focus of the State's GHG reduction targets, are allowed to proceed. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial proportion of future development projects and demonstrate that cumulative emissions reductions are being achieved while setting the emission threshold high enough to exclude small projects that will, in aggregate, contribute approximate 1 percent of projected statewide GHG emissions in the Year 2050 (34).

In setting the threshold at 3,000 MTCO2e per year, SCAQMD researched a database of projects kept by the Governor's Office of Planning and Research (OPR). That database contained 798 projects, 87 of which were removed because they were very large projects and/or outliers that would skew emissions values too high, leaving 711 as the sample population to use in determining the 90th percentile capture rate. The SCAQMD analysis of the 711 projects within the sample population combined commercial, residential, and mixed-use projects. It should be noted that the sample of projects included warehouses and other light industrial land uses but did not include industrial processes (i.e., oil refineries, heavy manufacturing, electric generating stations, mining operations, etc.). Emissions from each of these projects were calculated by SCAQMD to provide a consistent method of emissions calculations across the sample population and from projects within the sample population. In calculating the emissions, the SCAQMD analysis determined that the 90th percentile ranged between 2,983 to 3,143 MTCO2e per year. The SCAQMD set their significance threshold at the low-end value of the range when rounded to the nearest hundred tons of emissions (i.e., 3,000 MTCO2e per year) to define small projects that are considered less than significant and do not need to provide further analysis.

The City understands that the 3,000 MTCO2e per year threshold for residential/commercial uses was proposed by SCAQMD a decade ago and was adopted as an interim policy; however, no permanent, superseding policy or threshold has since been adopted. The 3,000 MTCO2e per year threshold was developed and recommended by SCAQMD, an expert agency, based on substantial evidence as provided in the Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold (2008) document and subsequent Working Group meetings (latest of which occurred in 2010). SCAQMD has not withdrawn its support of the interim threshold and all documentation supporting the interim threshold remains on the SCAQMD website on a page that provides guidance to CEQA practitioners for air quality analysis (and where all SCAQMD significance thresholds for regional and local criteria pollutants and toxic air contaminants also are listed). Further, as stated by SCAQMD, this threshold “uses the Executive Order S-3-05 goal [80 percent below 1990 levels by 2050] as the basis for deriving the screening level” and, thus, remains valid for use in 2022 (34). Lastly, this threshold has been used for hundreds, if not thousands of GHG analyses performed for projects located within the SCAQMD jurisdiction.

Thus, for purposes of analysis in this analysis, if Project-related GHG emissions do not exceed the 3,000 MTCO2e per year threshold, then Project-related GHG emissions would clearly have a less-than-significant impact pursuant to Threshold GHG-1. On the other hand, if Project-related GHG emissions exceed 3,000 MTCO2e per year, the Project would be considered a substantial source of GHG emissions.

GHG IMPACTS – CONSISTENCY WITH THRESHOLD NO. 1

Would the Project have the potential to generate direct or indirect GHG emissions that would result in a significant impact on the environment?

PROJECT GHG EMISSIONS

The estimated GHG emissions for the Project land use are summarized on Table 8. The estimated GHG emission include emissions from Carbon Dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), and Refrigerants (R). As shown on Table 11, the Project would generate a total of approximately 2,285.46 $MTCO_2e$/yr. Detailed operation model outputs for the proposed Project are presented in Attachment B.

TABLE 11: TOTAL PROJECT GHG EMISSIONS

Source	Emission (lbs/day)				
	CO_2	CH_4	N_2O	R	Total CO_2e
Annual construction-related emissions amortized over 30 years	24.13	1.00E-03	1.33E-03	1.37E-02	24.53
Mobile	1,506	0.06	0.20	2.01	1,569
Area	4.14	< 0.005	< 0.005	0.00	4.26
Energy	414	0.03	< 0.005	0.00	415
Water	81.80	1.54	0.04	0.00	131
Waste	17.10	1.71	0.00	0.00	59.90
Refrigerants	0.00	0.00	0.00	34.40	34.40
On-Site Equipment	0.00	0.00	0.00	0.00	47.37
Total CO_2e (All Sources)	**2,285.46**				

EXISTING BUILDING GHG EMISSIONS

The estimated GHG emissions from the existing buildings are summarized on Table 12. Detailed operation model outputs for the existing buildings are presented in Attachment D.

TABLE 12: EXISTING BUILDING GHG EMISSIONS

Source	Emission (lbs/day)				
	CO_2	CH_4	N_2O	R	Total CO_2e
Mobile Source	1235.00	0.05	0.16	1.65	1286.00
Area Source	3.33	< 0.005	< 0.005	0.00	3.43
Energy Source	326.00	0.03	< 0.005	0.00	327.00
Water	65.20	1.24	0.03	0.00	105.00
Waste	13.80	1.38	0.00	0.00	48.20
Refrigerants	0.00	0.00	0.00	27.70	27.70
Total CO_2e (All Sources)	**1,797.33**				

PROJECT NET NEW GHG EMISSIONS – COMPARISON TO EXISTING BUILDING

Table 13 shows the Project is anticipated to generate slightly more GHG emissions per day for as compared to emissions generated by the existing building, additionally; the proposed Projects emissions would still be less than the applicable thresholds.

TABLE 13: PROJECT NET NEW GHG EMISSIONS

Emission Source	Total CO_2e
Proposed Project	2,285.46
Existing Building	1,797.33
Net Emissions (Proposed – Existing)	**488.13**

A numerical threshold for determining the significance of GHG emissions in the SCAB has not been established by the 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% of emissions from future development. The latest threshold developed by SCAQMD using this method is 3,000 $MTCO_2e$/yr for all projects (35).

The Project would result in approximately a net 488.13 $MTCO_2e$/yr; the proposed Project would not exceed the SCAQMD's numeric threshold of 3,000 $MTCO_2e$/yr. Thus, the Project would result in a less than significant impact with respect to GHG emissions.

GHG IMPACTS – CONSISTENCY WITH THRESHOLD NO. 2

Would the Project have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

Pursuant to 15604.4 of the CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions (36).

The 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) lays out a path to achieve targets for carbon neutrality and reduce anthropogenic greenhouse gas (GHG) emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon (37).

Finally, the Project is consistent with the general plan land use designation, density, building intensity, and applicable policies specified for the Project area in SCAG's Sustainable Community Strategy/ Regional Transportation Plan, which pursuant to SB 375 calls for the integration of transportation, land-use and housing policies to plan for achievement of the GHG-emissions target for the region. Thus, a less than significant impact related to GHG emissions from Project construction and operation would occur and no mitigation is required.

CONCLUSION

Results of the assessment indicate that the Project is not anticipated to result in a significant impact during construction or operational activities associated with air quality and GHG.

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ATTACHMENT A

CALEEMOD PROPOSED PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS

15271 - Amar & Kaplan (Construction Tier 4) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15271 - Amar & Kaplan (Construction Tier 4)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	22.4
Location	15940 Amar Rd, City of Industry, CA 91744, USA
County	Los Angeles-South Coast
City	Industry
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5073
EDFZ	7
Electric Utility	City of Industry
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	204	1000sqft	4.68	204,000	53,693	—	—	—
Parking Lot	312	Space	1.14	0.00	0.00	—	—	—

Other Asphalt Surfaces	4.26	Acre	4.26	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.40	1.09	26.8	40.3	0.10	0.32	4.36	4.68	0.31	1.43	1.75	—	12,414	12,414	0.57	0.93	13.6	12,719
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.40	52.6	27.1	40.1	0.10	0.43	5.90	6.00	0.41	2.74	2.85	—	12,401	12,401	0.57	0.93	0.35	12,693
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.71	3.42	10.4	18.2	0.03	0.16	1.62	1.78	0.15	0.44	0.59	—	4,372	4,372	0.19	0.23	2.50	4,448
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.13	0.62	1.90	3.32	0.01	0.03	0.30	0.33	0.03	0.08	0.11	—	724	724	0.03	0.04	0.41	736

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.40	1.09	26.8	40.3	0.10	0.32	4.36	4.68	0.31	1.43	1.75	—	12,414	12,414	0.57	0.93	13.6	12,719
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.40	52.6	27.1	40.1	0.10	0.43	5.90	6.00	0.41	2.74	2.85	—	12,401	12,401	0.57	0.93	0.35	12,693
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.71	3.42	10.4	18.2	0.03	0.16	1.62	1.78	0.15	0.44	0.59	—	4,372	4,372	0.19	0.23	2.50	4,448
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.13	0.62	1.90	3.32	0.01	0.03	0.30	0.33	0.03	0.08	0.11	—	724	724	0.03	0.04	0.41	736

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.56	12.0	18.2	0.03	0.37	—	0.37	0.35	—	0.35	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	3.41	3.41	—	0.52	0.52	—	—	—	—	—	—	—
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.99	1.49	< 0.005	0.03	—	0.03	0.03	—	0.03	—	282	282	0.01	< 0.005	—	282
Demolition	—	—	—	—	—	—	0.28	0.28	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.18	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.6	46.6	< 0.005	< 0.005	—	46.8
Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	129	129	0.01	0.02	0.01	135
Hauling	0.33	0.09	5.76	2.13	0.03	0.06	1.17	1.22	0.06	0.32	0.38	—	4,441	4,441	0.24	0.71	0.26	4,660
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.01	11.1
Hauling	0.03	0.01	0.48	0.17	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	365	365	0.02	0.06	0.36	383
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.77	2.77	< 0.005	< 0.005	< 0.005	2.81

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.76	1.76	< 0.005	< 0.005	< 0.005	1.83
Hauling	0.01	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	60.4	60.4	< 0.005	0.01	0.06	63.4

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.68	15.7	30.0	0.05	0.10	—	0.10	0.10	—	0.10	—	5,529	5,529	0.22	0.04	—	5,548
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.43	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	151	151	0.01	< 0.005	—	152
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.08	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	25.1	25.1	< 0.005	< 0.005	—	25.2
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.12	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	234	234	0.01	0.01	0.03	237
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.3	32.3	< 0.005	< 0.005	< 0.005	33.6
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.51	6.51	< 0.005	< 0.005	0.01	6.60
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.88	0.88	< 0.005	< 0.005	< 0.005	0.92
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.08	1.08	< 0.005	< 0.005	< 0.005	1.09
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.15	0.15	< 0.005	< 0.005	< 0.005	0.15
Hauling	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	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.88	20.0	36.2	0.06	0.26	—	0.26	0.25	—	0.25	—	6,715	6,715	0.27	0.05	—	6,738
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.88	20.0	36.2	0.06	0.26	—	0.26	0.25	—	0.25	—	6,715	6,715	0.27	0.05	—	6,738
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.64	2.97	0.01	0.02	—	0.02	0.02	—	0.02	—	552	552	0.02	< 0.005	—	554
Dust From Material Movement	—	—	—	—	—	—	0.22	0.22	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.30	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	91.4	91.4	< 0.005	< 0.005	—	91.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.10	1.51	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	282	282	0.01	0.01	1.11	287
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	129	129	0.01	0.02	0.35	135
Hauling	0.40	0.11	6.62	2.55	0.03	0.07	1.39	1.46	0.07	0.38	0.45	—	5,288	5,288	0.28	0.85	12.2	5,560
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.11	1.28	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	268	268	0.01	0.01	0.03	271
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	129	129	0.01	0.02	0.01	135
Hauling	0.40	0.11	6.87	2.54	0.03	0.07	1.39	1.46	0.07	0.38	0.45	—	5,290	5,290	0.28	0.85	0.32	5,550
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.3	22.3	< 0.005	< 0.005	0.04	22.6
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.01	11.1
Hauling	0.03	0.01	0.57	0.21	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	435	435	0.02	0.07	0.43	456
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.70	3.70	< 0.005	< 0.005	0.01	3.75
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.76	1.76	< 0.005	< 0.005	< 0.005	1.83
Hauling	0.01	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	72.0	72.0	< 0.005	0.01	0.07	75.6

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	0.39	9.51	15.7	0.03	0.15	—	0.15	0.14	—	0.14	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	0.39	9.51	15.7	0.03	0.15	—	0.15	0.14	—	0.14	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.21	5.00	8.24	0.01	0.08	—	0.08	0.07	—	0.07	—	1,384	1,384	0.06	0.01	—	1,388
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.91	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.01	< 0.005	—	230
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.38	0.41	6.46	0.00	0.00	1.12	1.12	0.00	0.26	0.26	—	1,210	1,210	0.05	0.04	4.77	1,228
Vendor	0.06	0.02	0.91	0.45	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	774	774	0.03	0.11	2.10	809
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.42	0.38	0.49	5.46	0.00	0.00	1.12	1.12	0.00	0.26	0.26	—	1,147	1,147	0.05	0.04	0.12	1,161
Vendor	0.06	0.02	0.95	0.46	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	775	775	0.03	0.11	0.05	807
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.20	0.25	3.02	0.00	0.00	0.58	0.58	0.00	0.14	0.14	—	612	612	0.03	0.02	1.08	621
Vendor	0.03	0.01	0.50	0.24	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	407	407	0.02	0.06	0.47	425
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.05	0.55	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	101	101	< 0.005	< 0.005	0.18	103
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	67.4	67.4	< 0.005	0.01	0.08	70.4
Hauling	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	0.00

3.9. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.29	7.24	10.6	0.01	0.16	—	0.16	0.15	—	0.15	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.40	0.58	< 0.005	0.01	—	0.01	0.01	—	0.01	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.02	11.3
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.85	1.85	< 0.005	< 0.005	< 0.005	1.87
Vendor	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	0.00
Hauling	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	0.00

3.11. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.45	1.28	< 0.005	0.09	—	0.09	0.08	—	0.08	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	50.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.08	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.76	9.76	< 0.005	< 0.005	—	9.79
Architectural Coatings	—	2.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.62	1.62	< 0.005	< 0.005	—	1.62
Architectural Coatings	—	0.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.10	1.09	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	229	229	0.01	0.01	0.02	232
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.02	12.9
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.11	2.11	< 0.005	< 0.005	< 0.005	2.14
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2024	2/9/2024	5.00	30.0	—
Site Preparation	Site Preparation	2/12/2024	2/23/2024	5.00	10.0	—
Grading	Grading	2/26/2024	4/5/2024	5.00	30.0	—
Building Construction	Building Construction	4/8/2024	12/31/2024	5.00	192	—
Paving	Paving	12/4/2024	12/31/2024	5.00	20.0	—
Architectural Coating	Architectural Coating	12/4/2024	12/31/2024	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 3	1.00	8.00	33.0	0.73

Demolition	Excavators	Diesel	Tier 3	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Tier 4 Interim	4.00	8.00	87.0	0.43
Grading	Excavators	Diesel	Tier 3	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Tier 4 Interim	2.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 3	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 3	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 3	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 3	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	4.00	10.2	HHDT,MHDT
Demolition	Hauling	63.0	20.0	HHDT

Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	1.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	4.00	10.2	HHDT,MHDT
Grading	Hauling	75.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	85.7	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.1	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	306,000	102,000	14,113

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	164,259	—
Site Preparation	—	—	35.0	0.00	—
Grading	—	18,000	120	0.00	—
Paving	0.00	0.00	0.00	0.00	5.40

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt

Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.14	100%
Other Asphalt Surfaces	4.26	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	453	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.5	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	71.7

AQ-PM	82.9
AQ-DPM	25.3
Drinking Water	86.5
Lead Risk Housing	89.9
Pesticides	0.00
Toxic Releases	80.9
Traffic	60.1
Effect Indicators	—
CleanUp Sites	18.7
Groundwater	51.2
Haz Waste Facilities/Generators	2.51
Impaired Water Bodies	58.7
Solid Waste	52.9
Sensitive Population	—
Asthma	71.8
Cardio-vascular	69.9
Low Birth Weights	62.6
Socioeconomic Factor Indicators	—
Education	83.8
Housing	6.89
Linguistic	78.5
Poverty	41.0
Unemployment	65.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	62.47914795
Employed	76.78686
Median HI	58.32157064
Education	—
Bachelor's or higher	25.63839343
High school enrollment	100
Preschool enrollment	49.42897472
Transportation	—
Auto Access	70.20402926
Active commuting	30.7583729
Social	—
2-parent households	55.67817272
Voting	27.97382266
Neighborhood	—
Alcohol availability	67.1885025
Park access	16.07853202
Retail density	30.41190812
Supermarket access	60.50301553
Tree canopy	18.49095342
Housing	—
Homeownership	83.7931477
Housing habitability	87.96355704
Low-inc homeowner severe housing cost burden	52.21352496
Low-inc renter severe housing cost burden	99.08892596
Uncrowded housing	18.58077762
Health Outcomes	—

Insured adults	23.55960477
Arthritis	0.0
Asthma ER Admissions	22.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	57.6
Cognitively Disabled	30.7
Physically Disabled	46.5
Heart Attack ER Admissions	19.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	61.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	76.4

Elderly	76.6
English Speaking	29.8
Foreign-born	64.8
Outdoor Workers	73.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	47.1
Traffic Access	70.1
Other Indices	—
Hardship	65.2
Other Decision Support	—
2016 Voting	28.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	78.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction compressed to account for 2024 Opening Year Building, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/Bs replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases Standard 8 hours work days PDF: off-road diesel construction equipment rated at 50 horsepower (hp) or greater, will comply with Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 off-road emissions standards or equivalent.
Construction: Architectural Coatings	SCAQMD Rule 1113
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction

ATTACHMENT B

CALEEMOD PROPOSED PROJECT OPERATIONAL EMISSIONS MODEL OUTPUTS

15271-Amar & Kaplan Proposed (Operations) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15271-Amar & Kaplan Proposed (Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	22.4
Location	15940 Amar Rd, City of Industry, CA 91744, USA
County	Los Angeles-South Coast
City	Industry
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5073
EDFZ	7
Electric Utility	City of Industry
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	204	1000sqft	4.68	204,000	53,693	—	—	—
Parking Lot	312	Space	1.14	0.00	0.00	—	—	—

Other Asphalt Surfaces	4.26	Acre	4.26	0.00	0.00	—	—	—
User Defined Industrial	204	User Defined Unit	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.30	7.22	13.6	22.3	0.12	0.25	2.21	2.46	0.25	0.49	0.74	194	15,420	15,614	20.4	1.87	246	16,928
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.71	5.75	14.0	12.8	0.12	0.24	2.21	2.45	0.23	0.49	0.72	194	15,317	15,510	20.4	1.88	209	16,787
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.36	6.47	10.7	15.8	0.09	0.20	1.62	1.82	0.20	0.36	0.56	194	12,026	12,220	20.2	1.44	220	13,374
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.43	1.18	1.96	2.89	0.02	0.04	0.30	0.33	0.04	0.07	0.10	32.1	1,991	2,023	3.35	0.24	36.4	2,214

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.60	1.04	12.4	12.5	0.12	0.16	2.21	2.37	0.15	0.49	0.64	—	12,480	12,480	0.53	1.63	38.4	13,019
Area	1.58	6.12	0.07	8.87	< 0.005	0.01	—	0.01	0.02	—	0.02	—	36.5	36.5	< 0.005	< 0.005	—	37.5
Energy	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	2,500	2,500	0.20	0.01	—	2,509
Water	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Waste	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Total	3.30	7.22	13.6	22.3	0.12	0.25	2.21	2.46	0.25	0.49	0.74	194	15,420	15,614	20.4	1.87	246	16,928
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.59	1.03	13.0	11.9	0.12	0.16	2.21	2.37	0.15	0.49	0.64	—	12,413	12,413	0.53	1.64	1.00	12,916
Area	—	4.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	2,500	2,500	0.20	0.01	—	2,509
Water	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Waste	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Total	1.71	5.75	14.0	12.8	0.12	0.24	2.21	2.45	0.23	0.49	0.72	194	15,317	15,510	20.4	1.88	209	16,787
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.16	0.75	9.63	8.85	0.08	0.11	1.62	1.73	0.11	0.36	0.47	—	9,098	9,098	0.39	1.20	12.1	9,477
Area	1.08	5.66	0.05	6.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.0	25.0	< 0.005	< 0.005	—	25.7
Energy	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	2,500	2,500	0.20	0.01	—	2,509
Water	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Waste	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208

Total	2.36	6.47	10.7	15.8	0.09	0.20	1.62	1.82	0.20	0.36	0.56	194	12,026	12,220	20.2	1.44	220	13,374
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.14	1.76	1.61	0.02	0.02	0.30	0.32	0.02	0.07	0.09	—	1,506	1,506	0.06	0.20	2.01	1,569
Area	0.20	1.03	0.01	1.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.14	4.14	< 0.005	< 0.005	—	4.26
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	414	414	0.03	< 0.005	—	415
Water	—	—	—	—	—	—	—	—	—	—	—	15.0	66.8	81.8	1.54	0.04	—	131
Waste	—	—	—	—	—	—	—	—	—	—	—	17.1	0.00	17.1	1.71	0.00	—	59.9
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	34.4	34.4
Total	0.43	1.18	1.96	2.89	0.02	0.04	0.30	0.33	0.04	0.07	0.10	32.1	1,991	2,023	3.35	0.24	36.4	2,214

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.83	0.76	0.41	6.97	0.01	0.01	0.51	0.52	0.01	0.09	0.10	—	1,402	1,402	0.07	0.04	5.33	1,421
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00

User Defined Industrial	0.77	0.28	12.0	5.53	0.10	0.15	1.70	1.85	0.14	0.40	0.54	—	11,078	11,078	0.46	1.59	33.1	11,598
Total	1.60	1.04	12.4	12.5	0.12	0.16	2.21	2.37	0.15	0.49	0.64	—	12,480	12,480	0.53	1.63	38.4	13,019
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.83	0.76	0.46	6.40	0.01	0.01	0.51	0.52	0.01	0.09	0.10	—	1,333	1,333	0.07	0.04	0.14	1,348
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.77	0.27	12.5	5.53	0.10	0.15	1.70	1.85	0.14	0.40	0.55	—	11,080	11,080	0.46	1.59	0.86	11,568
Total	1.59	1.03	13.0	11.9	0.12	0.16	2.21	2.37	0.15	0.49	0.64	—	12,413	12,413	0.53	1.64	1.00	12,916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.11	0.10	0.06	0.88	< 0.005	< 0.005	0.07	0.07	< 0.005	0.01	0.01	—	164	164	0.01	0.01	0.28	166
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.10	0.04	1.70	0.74	0.01	0.02	0.23	0.25	0.02	0.05	0.07	—	1,343	1,343	0.06	0.19	1.73	1,403
Total	0.21	0.14	1.76	1.61	0.02	0.02	0.30	0.32	0.02	0.07	0.09	—	1,506	1,506	0.06	0.20	2.01	1,569

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,186	1,186	0.09	0.01	—	1,191
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	54.0	54.0	< 0.005	< 0.005	—	54.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,240	1,240	0.09	0.01	—	1,245
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,186	1,186	0.09	0.01	—	1,191
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	54.0	54.0	< 0.005	< 0.005	—	54.3

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,240	1,240	0.09	0.01	—	1,245
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	196	196	0.01	< 0.005	—	197
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	8.94	8.94	< 0.005	< 0.005	—	8.98
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	205	205	0.01	< 0.005	—	206

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,260	1,260	0.11	< 0.005	—	1,264

Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,260	1,260	0.11	< 0.005	—	1,264
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,260	1,260	0.11	< 0.005	—	1,264
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,260	1,260	0.11	< 0.005	—	1,264
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	209	209	0.02	< 0.005	—	209
Parking Lot	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

Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	209	209	0.02	< 0.005	—	209

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	4.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.58	1.45	0.07	8.87	< 0.005	0.01	—	0.01	0.02	—	0.02	—	36.5	36.5	< 0.005	< 0.005	—	37.5
Total	1.58	6.12	0.07	8.87	< 0.005	0.01	—	0.01	0.02	—	0.02	—	36.5	36.5	< 0.005	< 0.005	—	37.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	4.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	4.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.20	0.18	0.01	1.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.14	4.14	< 0.005	< 0.005	—	4.26
Total	0.20	1.03	0.01	1.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.14	4.14	< 0.005	< 0.005	—	4.26

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	15.0	66.8	81.8	1.54	0.04	—	131
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.0	66.8	81.8	1.54	0.04	—	131

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.1	0.00	17.1	1.71	0.00	—	59.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.1	0.00	17.1	1.71	0.00	—	59.9

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	34.4	34.4
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	34.4	34.4

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	226	19.8	7.96	60,483	1,887	165	66.3	503,957
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	122	10.8	4.28	32,699	3,730	329	131	996,326

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	306,000	102,000	14,113

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	954,794	453	0.0330	0.0040	3,932,334
Parking Lot	43,501	453	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	453	0.0330	0.0040	0.00
User Defined Industrial	0.00	453	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	47,175,000	753,022
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	192	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.5	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A

Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	71.7
AQ-PM	82.9
AQ-DPM	25.3
Drinking Water	86.5
Lead Risk Housing	89.9
Pesticides	0.00
Toxic Releases	80.9
Traffic	60.1
Effect Indicators	—
CleanUp Sites	18.7
Groundwater	51.2
Haz Waste Facilities/Generators	2.51

Impaired Water Bodies	58.7
Solid Waste	52.9
Sensitive Population	—
Asthma	71.8
Cardio-vascular	69.9
Low Birth Weights	62.6
Socioeconomic Factor Indicators	—
Education	83.8
Housing	6.89
Linguistic	78.5
Poverty	41.0
Unemployment	65.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	62.47914795
Employed	76.78686
Median HI	58.32157064
Education	—
Bachelor's or higher	25.63839343
High school enrollment	100
Preschool enrollment	49.42897472
Transportation	—
Auto Access	70.20402926
Active commuting	30.7583729

Social	—
2-parent households	55.67817272
Voting	27.97382266
Neighborhood	—
Alcohol availability	67.1885025
Park access	16.07853202
Retail density	30.41190812
Supermarket access	60.50301553
Tree canopy	18.49095342
Housing	—
Homeownership	83.7931477
Housing habitability	87.96355704
Low-inc homeowner severe housing cost burden	52.21352496
Low-inc renter severe housing cost burden	99.08892596
Uncrowded housing	18.58077762
Health Outcomes	—
Insured adults	23.55960477
Arthritis	0.0
Asthma ER Admissions	22.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	57.6
Cognitively Disabled	30.7

Physically Disabled	46.5
Heart Attack ER Admissions	19.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	61.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	76.4
Elderly	76.6
English Speaking	29.8
Foreign-born	64.8
Outdoor Workers	73.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	47.1
Traffic Access	70.1
Other Indices	—
Hardship	65.2
Other Decision Support	—

2016 Voting	28.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	78.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from Site Plan
Operations: Vehicle Data	Trips taken from ITE 11th Edition
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks
Operations: Architectural Coatings	SCAQMD Rule 1113

Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively.

ATTACHMENT C

CALEEMOD PROPOSED PROJECT OPERATIONAL LST EMISSIONS MODEL OUTPUTS

15271 - Amar & Kaplan Ave (Operational LSTs) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15271 - Amar & Kaplan Ave (Operational LSTs)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	22.4
Location	16020 Amar Rd, La Puente, CA 91744, USA
County	Los Angeles-South Coast
City	Industry
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5073
EDFZ	7
Electric Utility	City of Industry
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	204	1000sqft	4.68	204,000	53,693	—	—	—
Parking Lot	312	Space	1.14	0.00	0.00	—	—	—

Other Asphalt Surfaces	4.26	Acre	4.26	0.00	0.00	—	—	—
User Defined Industrial	204	User Defined Unit	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.79	7.18	2.64	13.2	0.01	0.10	0.03	0.12	0.10	0.01	0.10	194	3,248	3,441	19.9	0.30	208	4,238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.20	5.71	2.65	4.76	0.01	0.08	0.03	0.11	0.08	0.01	0.09	194	3,212	3,406	20.0	0.30	208	4,201
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.99	6.44	2.25	9.72	0.01	0.09	0.02	0.11	0.09	< 0.005	0.10	194	3,154	3,347	19.9	0.28	208	4,138
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.36	1.17	0.41	1.77	< 0.005	0.02	< 0.005	0.02	0.02	< 0.005	0.02	32.1	522	554	3.30	0.05	34.4	685

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.10	1.01	1.51	3.40	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	308	308	0.11	0.06	0.35	328
Area	1.58	6.12	0.07	8.87	< 0.005	0.01	—	0.01	0.02	—	0.02	—	36.5	36.5	< 0.005	< 0.005	—	37.5
Energy	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	2,500	2,500	0.20	0.01	—	2,509
Water	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Waste	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Total	2.79	7.18	2.64	13.2	0.01	0.10	0.03	0.12	0.10	0.01	0.10	194	3,248	3,441	19.9	0.30	208	4,238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.09	0.99	1.59	3.87	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	308	308	0.12	0.06	0.01	330
Area	—	4.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	2,500	2,500	0.20	0.01	—	2,509
Water	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Waste	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Total	1.20	5.71	2.65	4.76	0.01	0.08	0.03	0.11	0.08	0.01	0.09	194	3,212	3,406	20.0	0.30	208	4,201
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.79	0.72	1.14	2.76	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	225	225	0.09	0.04	0.11	241
Area	1.08	5.66	0.05	6.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.0	25.0	< 0.005	< 0.005	—	25.7
Energy	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	2,500	2,500	0.20	0.01	—	2,509
Water	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Waste	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208

Total	1.99	6.44	2.25	9.72	0.01	0.09	0.02	0.11	0.09	< 0.005	0.10	194	3,154	3,347	19.9	0.28	208	4,138
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.14	0.13	0.21	0.50	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	37.3	37.3	0.01	0.01	0.02	39.8
Area	0.20	1.03	0.01	1.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.14	4.14	< 0.005	< 0.005	—	4.26
Energy	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	414	414	0.03	< 0.005	—	415
Water	—	—	—	—	—	—	—	—	—	—	—	15.0	66.8	81.8	1.54	0.04	—	131
Waste	—	—	—	—	—	—	—	—	—	—	—	17.1	0.00	17.1	1.71	0.00	—	59.9
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	34.4	34.4
Total	0.36	1.17	0.41	1.77	< 0.005	0.02	< 0.005	0.02	0.02	< 0.005	0.02	32.1	522	554	3.30	0.05	34.4	685

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.95	0.93	0.21	2.35	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	101	101	0.05	0.03	0.17	110
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00

User Defined Industrial	0.14	0.08	1.30	1.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	206	206	0.06	0.03	0.18	218
Total	1.10	1.01	1.51	3.40	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	308	308	0.11	0.06	0.35	328
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.95	0.92	0.23	2.77	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	100	100	0.06	0.03	< 0.005	109
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.14	0.07	1.36	1.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	208	208	0.06	0.03	< 0.005	220
Total	1.09	0.99	1.59	3.87	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	308	308	0.12	0.06	0.01	330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.13	0.12	0.03	0.36	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.2	12.2	0.01	< 0.005	0.01	13.3
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.02	0.01	0.18	0.14	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	25.1	25.1	0.01	< 0.005	0.01	26.5
Total	0.14	0.13	0.21	0.50	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	37.3	37.3	0.01	0.01	0.02	39.8

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,186	1,186	0.09	0.01	—	1,191
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	54.0	54.0	< 0.005	< 0.005	—	54.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,240	1,240	0.09	0.01	—	1,245
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,186	1,186	0.09	0.01	—	1,191
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	54.0	54.0	< 0.005	< 0.005	—	54.3

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,240	1,240	0.09	0.01	—	1,245
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	196	196	0.01	< 0.005	—	197
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	8.94	8.94	< 0.005	< 0.005	—	8.98
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	205	205	0.01	< 0.005	—	206

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,260	1,260	0.11	< 0.005	—	1,264

Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,260	1,260	0.11	< 0.005	—	1,264
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,260	1,260	0.11	< 0.005	—	1,264
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,260	1,260	0.11	< 0.005	—	1,264
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	209	209	0.02	< 0.005	—	209
Parking Lot	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

Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	209	209	0.02	< 0.005	—	209

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	4.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.58	1.45	0.07	8.87	< 0.005	0.01	—	0.01	0.02	—	0.02	—	36.5	36.5	< 0.005	< 0.005	—	37.5
Total	1.58	6.12	0.07	8.87	< 0.005	0.01	—	0.01	0.02	—	0.02	—	36.5	36.5	< 0.005	< 0.005	—	37.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	4.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	4.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.20	0.18	0.01	1.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.14	4.14	< 0.005	< 0.005	—	4.26
Total	0.20	1.03	0.01	1.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.14	4.14	< 0.005	< 0.005	—	4.26

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	90.4	404	494	9.30	0.22	—	793
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	15.0	66.8	81.8	1.54	0.04	—	131
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.0	66.8	81.8	1.54	0.04	—	131

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	103	0.00	103	10.3	0.00	—	362
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.1	0.00	17.1	1.71	0.00	—	59.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	17.1	0.00	17.1	1.71	0.00	—	59.9

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	208	208
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	34.4	34.4
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	34.4	34.4

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	349	30.6	12.2	93,181	59.3	5.20	2.08	15,841
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	122	10.8	4.28	32,699	20.8	1.84	0.73	5,559

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	306,000	102,000	14,113

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	954,794	453	0.0330	0.0040	3,932,334
Parking Lot	43,501	453	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	453	0.0330	0.0040	0.00
User Defined Industrial	0.00	453	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	47,175,000	753,022
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	192	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.5	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A

Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	71.7
AQ-PM	82.9
AQ-DPM	25.3
Drinking Water	86.5
Lead Risk Housing	89.9
Pesticides	0.00
Toxic Releases	80.9
Traffic	60.1
Effect Indicators	—
CleanUp Sites	18.7
Groundwater	51.2
Haz Waste Facilities/Generators	2.51

Impaired Water Bodies	58.7
Solid Waste	52.9
Sensitive Population	—
Asthma	71.8
Cardio-vascular	69.9
Low Birth Weights	62.6
Socioeconomic Factor Indicators	—
Education	83.8
Housing	6.89
Linguistic	78.5
Poverty	41.0
Unemployment	65.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	62.47914795
Employed	76.78686
Median HI	58.32157064
Education	—
Bachelor's or higher	25.63839343
High school enrollment	100
Preschool enrollment	49.42897472
Transportation	—
Auto Access	70.20402926
Active commuting	30.7583729

Social	—
2-parent households	55.67817272
Voting	27.97382266
Neighborhood	—
Alcohol availability	67.1885025
Park access	16.07853202
Retail density	30.41190812
Supermarket access	60.50301553
Tree canopy	18.49095342
Housing	—
Homeownership	83.7931477
Housing habitability	87.96355704
Low-inc homeowner severe housing cost burden	52.21352496
Low-inc renter severe housing cost burden	99.08892596
Uncrowded housing	18.58077762
Health Outcomes	—
Insured adults	23.55960477
Arthritis	0.0
Asthma ER Admissions	22.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	57.6
Cognitively Disabled	30.7

Physically Disabled	46.5
Heart Attack ER Admissions	19.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	61.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	76.4
Elderly	76.6
English Speaking	29.8
Foreign-born	64.8
Outdoor Workers	73.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	47.1
Traffic Access	70.1
Other Indices	—
Hardship	65.2
Other Decision Support	—

2016 Voting	28.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	78.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from Site Plan
Operations: Vehicle Data	Trips taken from ITE 11th Edition
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks
Operations: Architectural Coatings	SCAQMD Rule 1113

Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively.

ATTACHMENT D

CALEEMOD EXISTING OPERATIONAL EMISSIONS MODEL OUTPUTS

15271 - Amar & Kaplan Existing (Operations) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15271 - Amar & Kaplan Existing (Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	22.4
Location	16020 Amar Rd, La Puente, CA 91744, USA
County	Los Angeles-South Coast
City	Industry
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5073
EDFZ	7
Electric Utility	City of Industry
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	164	1000sqft	3.77	164,259	0.00	—	—	—
User Defined Industrial	164	User Defined Unit	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.73	5.83	11.5	18.6	0.10	0.20	1.78	1.99	0.20	0.40	0.60	156	12,550	12,706	16.4	1.53	199	13,771
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.45	4.65	11.9	11.0	0.10	0.19	1.78	1.98	0.19	0.40	0.58	156	12,464	12,620	16.4	1.53	168	13,655
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.95	5.21	9.11	13.2	0.07	0.17	1.31	1.47	0.16	0.29	0.45	156	9,767	9,923	16.3	1.17	177	10,858
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.36	0.95	1.66	2.41	0.01	0.03	0.24	0.27	0.03	0.05	0.08	25.8	1,617	1,643	2.70	0.19	29.4	1,798

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.37	0.89	10.6	10.8	0.09	0.13	1.78	1.91	0.12	0.40	0.52	—	10,230	10,230	0.45	1.34	31.5	10,671
Area	1.27	4.89	0.06	7.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.4	29.4	< 0.005	< 0.005	—	30.2
Energy	0.09	0.05	0.85	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,969	1,969	0.16	0.01	—	1,976
Water	—	—	—	—	—	—	—	—	—	—	—	72.8	321	394	7.49	0.18	—	635
Waste	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	167	167
Total	2.73	5.83	11.5	18.6	0.10	0.20	1.78	1.99	0.20	0.40	0.60	156	12,550	12,706	16.4	1.53	199	13,771
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.36	0.88	11.1	10.3	0.09	0.13	1.78	1.91	0.12	0.40	0.52	—	10,174	10,174	0.45	1.34	0.82	10,586
Area	—	3.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.09	0.05	0.85	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,969	1,969	0.16	0.01	—	1,976
Water	—	—	—	—	—	—	—	—	—	—	—	72.8	321	394	7.49	0.18	—	635
Waste	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	167	167
Total	1.45	4.65	11.9	11.0	0.10	0.19	1.78	1.98	0.19	0.40	0.58	156	12,464	12,620	16.4	1.53	168	13,655
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.99	0.64	8.22	7.62	0.07	0.09	1.31	1.40	0.09	0.29	0.38	—	7,457	7,457	0.33	0.98	9.95	7,768
Area	0.87	4.53	0.04	4.89	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.1	20.1	< 0.005	< 0.005	—	20.7
Energy	0.09	0.05	0.85	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,969	1,969	0.16	0.01	—	1,976
Water	—	—	—	—	—	—	—	—	—	—	—	72.8	321	394	7.49	0.18	—	635
Waste	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	167	167
Total	1.95	5.21	9.11	13.2	0.07	0.17	1.31	1.47	0.16	0.29	0.45	156	9,767	9,923	16.3	1.17	177	10,858
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.18	0.12	1.50	1.39	0.01	0.02	0.24	0.26	0.02	0.05	0.07	—	1,235	1,235	0.05	0.16	1.65	1,286
Area	0.16	0.83	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.33	3.33	< 0.005	< 0.005	—	3.43

Energy	0.02	0.01	0.16	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	326	326	0.03	< 0.005	—	327
Water	—	—	—	—	—	—	—	—	—	—	—	12.1	53.2	65.2	1.24	0.03	—	105
Waste	—	—	—	—	—	—	—	—	—	—	—	13.8	0.00	13.8	1.38	0.00	—	48.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.7	27.7
Total	0.36	0.95	1.66	2.41	0.01	0.03	0.24	0.27	0.03	0.05	0.08	25.8	1,617	1,643	2.70	0.19	29.4	1,798

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.70	0.65	0.36	6.01	0.01	0.01	0.41	0.42	0.01	0.07	0.08	—	1,157	1,157	0.06	0.04	4.78	1,174
User Defined Industrial	0.66	0.24	10.3	4.76	0.08	0.12	1.37	1.50	0.12	0.33	0.44	—	9,073	9,073	0.39	1.30	26.7	9,497
Total	1.37	0.89	10.6	10.8	0.09	0.13	1.78	1.91	0.12	0.40	0.52	—	10,230	10,230	0.45	1.34	31.5	10,671
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	0.70	0.64	0.41	5.51	0.01	0.01	0.41	0.42	0.01	0.07	0.08	—	1,099	1,099	0.06	0.04	0.12	1,112
User Defined Industrial	0.66	0.23	10.7	4.76	0.08	0.12	1.37	1.50	0.12	0.33	0.44	—	9,074	9,074	0.39	1.30	0.69	9,473
Total	1.36	0.88	11.1	10.3	0.09	0.13	1.78	1.91	0.12	0.40	0.52	—	10,174	10,174	0.45	1.34	0.82	10,586
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.09	0.09	0.06	0.76	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.01	—	135	135	0.01	< 0.005	0.25	137
User Defined Industrial	0.09	0.03	1.44	0.63	0.01	0.02	0.18	0.20	0.02	0.04	0.06	—	1,099	1,099	0.05	0.16	1.40	1,149
Total	0.18	0.12	1.50	1.39	0.01	0.02	0.24	0.26	0.02	0.05	0.07	—	1,235	1,235	0.05	0.16	1.65	1,286

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	955	955	0.07	0.01	—	959

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	955	955	0.07	0.01	—	959
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	955	955	0.07	0.01	—	959
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	955	955	0.07	0.01	—	959
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	158	158	0.01	< 0.005	—	159
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	158	158	0.01	< 0.005	—	159

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	0.09	0.05	0.85	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,015	1,015	0.09	< 0.005	—	1,018
User Defined Industrial	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
Total	0.09	0.05	0.85	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,015	1,015	0.09	< 0.005	—	1,018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.09	0.05	0.85	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,015	1,015	0.09	< 0.005	—	1,018
User Defined Industrial	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
Total	0.09	0.05	0.85	0.71	0.01	0.06	—	0.06	0.06	—	0.06	—	1,015	1,015	0.09	< 0.005	—	1,018
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.02	0.01	0.16	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	168	168	0.01	< 0.005	—	168
User Defined Industrial	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
Total	0.02	0.01	0.16	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	168	168	0.01	< 0.005	—	168

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.27	1.17	0.06	7.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.4	29.4	< 0.005	< 0.005	—	30.2
Total	1.27	4.89	0.06	7.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.4	29.4	< 0.005	< 0.005	—	30.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	3.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.16	0.15	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.33	3.33	< 0.005	< 0.005	—	3.43

Total	0.16	0.83	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.33	3.33	< 0.005	< 0.005	—	3.43

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.8	321	394	7.49	0.18	—	635
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	72.8	321	394	7.49	0.18	—	635
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	72.8	321	394	7.49	0.18	—	635
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	72.8	321	394	7.49	0.18	—	635
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	12.1	53.2	65.2	1.24	0.03	—	105
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.1	53.2	65.2	1.24	0.03	—	105

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.8	0.00	13.8	1.38	0.00	—	48.2
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.8	0.00	13.8	1.38	0.00	—	48.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	167	167
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	167	167
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	167	167
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	167	167
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.7	27.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.7	27.7

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	182	15.9	6.41	48,700	1,519	133	53.4	405,782
User Defined Industrial	98.6	8.71	3.45	26,329	3,003	265	105	802,233

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	246,389	82,130	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	768,792	453	0.0330	0.0040	3,166,280
User Defined Industrial	0.00	453	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	37,984,894	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	154	0.00
User Defined Industrial	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.5	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth

Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	71.7
AQ-PM	82.9
AQ-DPM	25.3
Drinking Water	86.5
Lead Risk Housing	89.9
Pesticides	0.00
Toxic Releases	80.9
Traffic	60.1

Effect Indicators	—
CleanUp Sites	18.7
Groundwater	51.2
Haz Waste Facilities/Generators	2.51
Impaired Water Bodies	58.7
Solid Waste	52.9
Sensitive Population	—
Asthma	71.8
Cardio-vascular	69.9
Low Birth Weights	62.6
Socioeconomic Factor Indicators	—
Education	83.8
Housing	6.89
Linguistic	78.5
Poverty	41.0
Unemployment	65.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	62.47914795
Employed	76.78686
Median HI	58.32157064
Education	—
Bachelor's or higher	25.63839343
High school enrollment	100

Preschool enrollment	49.42897472
Transportation	—
Auto Access	70.20402926
Active commuting	30.7583729
Social	—
2-parent households	55.67817272
Voting	27.97382266
Neighborhood	—
Alcohol availability	67.1885025
Park access	16.07853202
Retail density	30.41190812
Supermarket access	60.50301553
Tree canopy	18.49095342
Housing	—
Homeownership	83.7931477
Housing habitability	87.96355704
Low-inc homeowner severe housing cost burden	52.21352496
Low-inc renter severe housing cost burden	99.08892596
Uncrowded housing	18.58077762
Health Outcomes	—
Insured adults	23.55960477
Arthritis	0.0
Asthma ER Admissions	22.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0

Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	57.6
Cognitively Disabled	30.7
Physically Disabled	46.5
Heart Attack ER Admissions	19.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	61.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	76.4
Elderly	76.6
English Speaking	29.8
Foreign-born	64.8
Outdoor Workers	73.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	47.1

Traffic Access	70.1
Other Indices	—
Hardship	65.2
Other Decision Support	—
2016 Voting	28.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	78.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from client data
Operations: Vehicle Data	Trips taken from ITE 11th Edition

Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks
Operations: Architectural Coatings	SCAQMD Rule 1113
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively.

APPENDIX B
Amar Road and Kaplan Avenue Mobile Source Health Risk Assessment

City of Industry
Amar Industry Hills Development
Initial Study/Mitigated Negative Declaration
November 30, 2023

Amar & Kaplan Avenue

MOBILE SOURCE HEALTH RISK ASSESSMENT

CITY OF INDUSTRY

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AUGUST 25, 2023

15271-02 HRA Report

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(1)	Reference
µg	Microgram
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
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
ITE	Institute of Traffic Engineers
LHD	Light Heavy-Duty
MEIR	Maximally Exposed Individual Receptor
MEIW	Maximally Exposed Individual Worker
MEISC	Maximally Exposed Individual School Child
MHD	Medium Heavy-Duty
NAD	North American Datum
OEHHA	Office of Environmental Health Hazard Assessment
PM_{10}	Particulate Matter 10 microns in diameter or less
Project	Amar & Kaplan Avenue
REL	Reference Exposure Level
SCAQMD	South Coast Air Quality Management District
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
TA	Traffic Analysis
URF	Unit Risk Factor
UTM	Universal Transverse Mercator
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

This report evaluates the potential health risk impacts to sensitive receptors (which are residents) and adjacent workers associated with the development of the Project, more specifically, health risk impacts as a result of exposure to Toxic Air Contaminants (TACs) including diesel particulate matter (DPM) as a result of heavy-duty diesel trucks accessing the site. This section summarizes the significance criteria and Project health risks.

The results of the health risk assessment from Project-generated DPM emissions are provided in Table ES-1, ES-2, and ES-3 below for the Project.

CONSTRUCTION IMPACTS

The land use with the greatest potential exposure to Project construction-source DPM emissions is Location R2 which is located approximately 85 feet east of the Project site at an existing residence located at 16102 Pocono Street. Since there are no private outdoor living areas (backyards) facing the Project site, R2 is placed at the building façade. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at 3.81 in one million, which is less than the South Coast Air Quality Management District (SCAQMD) significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. Location R2 is the nearest receptor to the Project site and due to meteorological conditions (wind speed and direction) at the site would experience the highest concentrations of DPM during Project construction. Because all other modeled receptors would experience lower concentrations of DPM during Project construction, all other receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for this location. The modeled receptors are illustrated on Exhibit 2-D.

OPERATIONAL IMPACTS

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R2 which is located approximately 85 feet east of the Project site at an existing residence located at 16102 Pocono Street. Since there are no private outdoor living areas (backyards) facing the Project site, R2 is placed at the building façade. At the MEIR, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 0.66 in one million, which is less than the SCAQMD significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Location R2 is the nearest receptor to the Project site and due to meteorological conditions (wind speed and direction) at the site would experience the highest concentrations of DPM during Project operation. Because all other modeled receptors are located at a greater distance than the MEIR analyzed herein, and DPM dissipates with distance from the source, all other receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project operational activity. All other receptors would experience less risk than what is identified for this location. The modeled receptors are illustrated on Exhibit 2-D.

Worker Exposure Scenario[1]*:*

The worker receptor land use with the greatest potential exposure to Project operational -source DPM emissions is Location R7, which represents the potential worker receptor located approximately 0.16 feet east of the Project site. At the maximally exposed individual worker (MEIW), the maximum incremental cancer risk impact is 0.16 in one million which is less than the SCAQMD's threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Location R8 is the worker receptor that would experience the highest concentrations of DPM during Project operation due to meteorological conditions at the site. All other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby workers. The modeled receptors are illustrated on Exhibit 2-D.

School Child Exposure Scenario:

The nearest school is Workman High School, located approximately 1,645 feet south of the Project site and represented by Location R3. The maximally exposed individual school child (MEISC) is the school receptor that would experience the highest modeled concentrations of DPM, and thus the highest risk. At the MEISC, the maximum incremental cancer risk impact attributable to the Project is calculated to be 0.06 in one million, which is less than the significance threshold of 10 in one million. At this same location, non-cancer risks attributable to the Project were calculated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled school receptors would be exposed to lower concentrations of DPM, all other school receptors in the vicinity of the of the Project would be exposed to less emissions and therefore less risk than the MEISC identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby school children.

CONSTRUCTION AND OPERATIONAL IMPACTS

The land use with the greatest potential exposure to Project construction-source and operational-source DPM emissions is Location R2. At the MEIR, the maximum incremental cancer risk attributable to Project construction-source and operational-source DPM emissions is estimated at 4.29 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 <0.01, which would not exceed the applicable

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[1] 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.

threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to nearby residences. The modeled receptors are illustrated on Exhibit 2-D.

TABLE ES-1: SUMMARY OF CONSTRUCTION CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
1.00 Year Exposure	Maximum Exposed Sensitive Receptor	3.81	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor	<0.01	1.0	NO

TABLE ES-2: SUMMARY OF OPERATIONAL CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	Maximum Exposed Sensitive Receptor	0.66	10	NO
25 Year Exposure	Maximum Exposed Worker Receptor	0.16	10	NO
9 Year Exposure	Maximum Exposed Individual School Child	0.06	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor	<0.01	1.0	NO
Annual Average	Maximum Exposed Worker Receptor	<0.01	1.0	NO
Annual Average	Maximum Exposed Individual School Child	<0.01	1.0	NO

TABLE ES-3: SUMMARY OF CONSTRUCTION AND OPERATIONAL CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	Maximum Exposed Sensitive Receptor	4.29	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor	<0.01	1.0	NO

1 INTRODUCTION

This 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) and is comprised of all relevant and appropriate procedures presented by the United States Environmental Protection Agency (U.S. EPA), California EPA and SCAQMD. Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of ten (10) persons per million as the maximum acceptable incremental cancer risk due to TAC exposure from a project such as the proposed Project. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulatively considerable impact.

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 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 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). A 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. In this HRA, non-carcinogenic exposures of less than 1.0 are considered less-than-significant. Both the cancer risk and non-carcinogenic risk thresholds are applied to the nearest sensitive receptors below.

1.1 SITE LOCATION

The proposed Project is located at 15940-16016 Amar Road 15940-16040 Kaplan Avenue in the City of Industry (APNs 8250-001-011, 8250-001-012, 8250-001-013, 8250-001-014, 8250-001-015, 8250-001-016, and 8250-001-017).

1.2 PROJECT DESCRIPTION

The Project is proposing for the demolition of 10 existing buildings of approximately 164,259 square feet and proposing to construct one new industrial building. The proposed building consists of a 199,460 square-foot footprint with a 6,000 square-foot mezzanine, resulting in a total floor area of 205,460[2] square feet. The building includes 193,460 square feet for warehouse space, 6,000 square feet for office space on the 1st floor, and 6,000 square feet for office space on the 2nd floor. The proposed Project is anticipated to have an opening year of 2025. The Project's Tentative Tract Map is shown as Exhibit 1-A.

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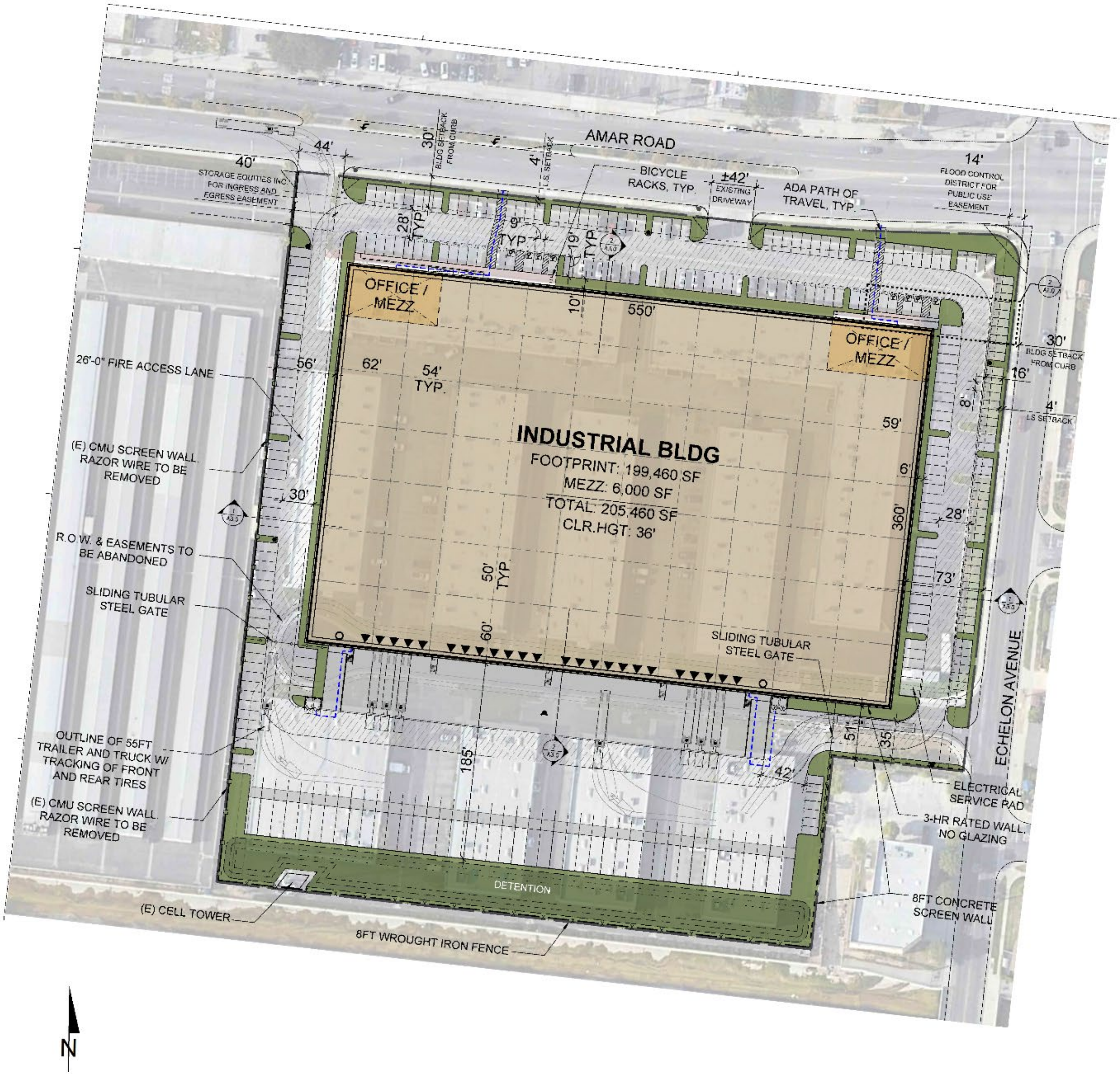
[2] The proposed building square footage utilized in this analysis is based on a previous site plan which assumed a slightly smaller building square footage. Nonetheless, the emissions analyzed in this report would not change and a less than significant impact is expected.

EXHIBIT 1-A: PROJECT TENTATIVE TRACT MAP



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2 BACKGROUND

2.1 BACKGROUND ON RECOMMENDED METHODOLOGY

This HRA is based on applicable guidelines to produce conservative estimates of human health risk posed by exposure to DPM. The conservative nature of this analysis is due primarily to the following factors:

- The ARB-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. Using the 95th percentile URF represents a very conservative (health-protective) risk posed by DPM because it represents breathing rates that are high for the human body.
- The emissions derived assume that every truck accessing the Project site will idle for 15 minutes under the unmitigated scenario, and this is an overestimation of actual idling times and thus conservative.[3] The California Air Resources Board (CARB's) anti-idling requirements impose a 5-minute maximum idling time and therefore the analysis conservatively overestimates DPM emissions from idling by a factor of 3.

2.2 CONSTRUCTION HEALTH RISK ASSESSMENT

2.2.1 EMISSIONS CALCULATIONS

The emissions calculations for the construction HRA component are based on an assumed mix of construction equipment and hauling activity as presented in the *Amar & Kaplan Avenue Air Quality & Greenhouse Gas Assessment* ("technical study") prepared by Urban Crossroads, Inc. (3)

Construction related DPM emissions are expected to occur primarily as a function of the operation of heavy-duty construction equipment.

As discussed in the technical study, the Project would result in approximately 262 total working-days of construction activity. The construction duration by phase is shown on Table 2-1. A detailed summary of construction equipment assumptions by phase is provided at Table 2-2. The CalEEMod emissions outputs are presented in Appendix 2.1. The modeled emission sources for construction activity are illustrated on Exhibit 2-A.

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[3] Although the Project is required to comply with ARB'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, in person, with Jillian Wong, December 22, 2016), 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.

TABLE 2-1: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Working Days
Demolition	1/1/2024	2/9/2024	30
Site Preparation	2/12/2024	2/23/2024	10
Grading	2/26/2024	4/5/2024	30
Building Construction	4/8/2024	12/31/2024	192
Paving	12/4/2024	12/31/2024	20
Architectural Coating	12/4/2024	12/31/2024	20

TABLE 2-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment	Amount	Hours Per Day
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Crawler Tractors	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

EXHIBIT 2-A: MODELED CONSTRUCTION EMISSION SOURCES

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,

2.3 OPERATIONAL HEALTH RISK ASSESSMENT

2.3.1 ON-SITE AND OFF-SITE TRUCK ACTIVITY

Vehicle DPM emissions were calculated using emission factors for particulate matter less than 10µm in diameter (PM_{10}) generated with the 2021 version of the EMission FACtor model (EMFAC) developed by the CARB. EMFAC 2021 is a mathematical model that CARB 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 (4). The most recent version of this model, EMFAC 2021, incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

Several distinct emission processes are included in EMFAC 2021. Emission factors calculated using EMFAC 2021 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 below.

For this Project, annual average PM_{10} emission factors were generated by running EMFAC 2021 in EMFAC Mode for vehicles in the Los Angeles County jurisdiction. 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.

- Idling – on-site loading/unloading and truck gate
- 5 miles per hour – on-site vehicle movement including driving and maneuvering
- 25 miles per hour – off-site vehicle movement including driving and maneuvering.

It is expected that minimal idling would occur at nearby intersections during truck travel on study area roadways (e.g., at an intersection during a red light, or yielding to make a turn). Notwithstanding, the analysis conservatively utilizes a reduced off-site average speed of 25 miles per hour (below the posted speed limit) for travel on study area roadways, use of a lower average speed for off-site travel results in a higher emission factor and therefore any negligible idling that would occur during truck travel along the study area is accounted for.

Calculated emission factors are shown at Table 2-3. As a conservative measure, a 2025 EMFAC 2021 run was conducted and a static 2025 emissions factor data set was used for the entire duration of analysis herein (e.g., 30 years). Use of 2025 emission factors would overstate potential impacts since this approach assumes that emission factors remain "static" and do not change over time due to fleet turnover or cleaner technology with lower emissions that would be incorporated into vehicles after 2025. Additionally, based on EMFAC 2021, Light-Heavy-Duty Trucks are comprised of 45.4% diesel, Medium-Heavy-Duty Trucks are comprised of 80.8% diesel, and Heavy-Heavy-Duty Trucks are comprised of 89.9% diesel. Trucks fueled by diesel are accounted for by these percentages accordingly in the emissions factor generation. Appendix 2.2 includes additional details on the emissions estimates from EMFAC.

The vehicle DPM exhaust emissions were calculated for running exhaust emissions. The running exhaust emissions were calculated by applying the running exhaust PM_{10} 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 (5):

$$Emissions_{Speed\ A} = EF_{Run\ Exhaust} \times Distance \times \frac{Number\ of\ Trips\ per\ Day}{Seconds\ per\ Day}$$

Where:

$Emissions_{Speed\ A}$ = Vehicle emissions at a given speed A (g/s)

$EF_{Run\ Exhaust}$ = EMFAC running exhaust PM_{10} emission factor at speed A (g/vmt)

$Distance$ = Total distance traveled per trip (miles)

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 assumed idle time (15 minutes). The following equation was used to estimate the on-site vehicle idling emissions for each of the different vehicle classes (5):

$$Emissions_{Idle} = EF_{Idle} \times Number\ of\ Trips \times Idling\ Time \times \frac{60\ minutes\ per\ hour}{seconds\ per\ day}$$

Where:

$Emissions_{Idle}$ = Vehicle emissions during Idling (g/s)

EF_{Idle} = EMFAC idle exhaust PM_{10} emission factor (g/s)

$Number\ of\ Trips$ = Number of trips per day

$Idling\ Time$ = Idling time (minutes per trip)

TABLE 2-3: 2025 WEIGHTED AVERAGE DPM EMISSIONS FACTORS

Speed	Weighted Average
0 (idling)	0.06848 (g/idle-hr)
5	0.01896 (g/s)
25	0.00765 (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 2.3. 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 Table 2-4. The modeled emission sources are illustrated on Exhibit 2-B for on-site sources and Exhibit 2-C for off-site sources. The modeling domain is limited to the Project's primary truck route and includes off-site sources in the study area for more than ¾ mile. This modeling domain is more inclusive and conservative than using only a ¼ mile modeling domain which is the distance supported by several reputable studies which conclude that the greatest potential risks occur within a ¼ mile of the primary source of emissions (6) (in the case of the Project, the primary source of emissions is the on-site idling and on-site travel).

On-site truck idling was estimated to occur as trucks enter and travel through the Project site. Although the Project's diesel-fueled truck and equipment operators will be required by State law to comply with CARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions be calculated assuming 15 minutes of truck idling (7), 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 calculates truck idling at 15 minutes, consistent with SCAQMD's recommendation.

Based on trip generation statistics published in the Institute of Transportation Engineers (ITE) <u>Trip Generation Manual</u> (11th Edition, 2021) for the Warehousing (ITE Land Use Code 150) land use category, the Project is expected to generate a total of approximately 122 two-way truck trips (61 trucks inbound + 61 trucks outbound) per day (8).

EXHIBIT 2-B: MODELED ON-SITE EMISSION SOURCES

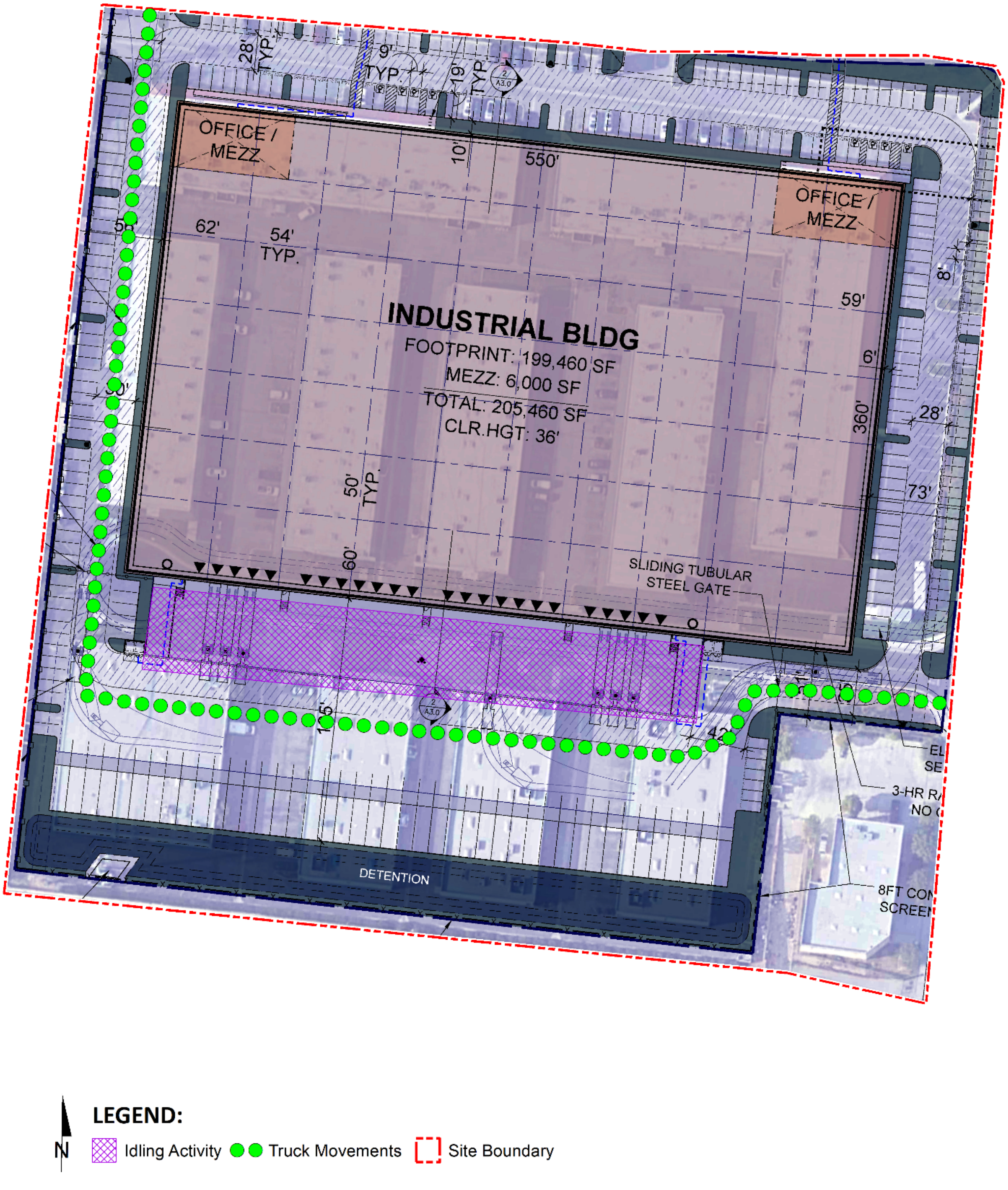

EXHIBIT 2-C: MODELED OFF-SITE EMISSION SOURCES

TABLE 2-4: DPM EMISSIONS FROM PROJECT TRUCKS (2025 ANALYSIS YEAR)

Truck Emission Rates						
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	61			0.0685	1.04	1.209E-05
On-Site Travel - 100%	122	28.57	0.0190		0.54	6.269E-06
Off-Site Travel - Amar W. 50%	61	45.85	0.0077		0.35	4.062E-06
Off-Site Travel - Echelon 50%	61	5.79	0.0077		0.04	5.131E-07
Off-Site Travel - Amar E. 50%	61	76.38	0.0077		0.58	6.767E-06

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2021. 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.

2.4 EXPOSURE QUANTIFICATION

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). The Environmental Protection Agency's (U.S. EPA's) AERMOD model has been utilized. For purposes of this analysis, the Lakes AERMOD View (Version 11.2.0) was used to calculate annual average particulate concentrations associated with site operations. Lakes AERMOD View was utilized to incorporate the U.S. EPA's latest AERMOD Version 22112 (9).

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. For this HRA, the roadways were modeled as adjacent volume sources. Roadways were modeled using the U.S. EPA's haul route methodology for modeling of on-site and off-site truck movement. More specifically, the Haul Road Volume Source Calculator in Lakes AERMOD View has been utilized to determine the release height parameters. Based on the US EPA methodology, the Project's modeled sources would result in a release height of 3.49 meters and an initial lateral dimension of 4.0 meters, and an initial vertical dimension of 3.25 meters.

Model parameters are presented in Table 2-5 (10). The model requires additional input parameters including emission data and local meteorology. Meteorological data from the SCAQMD's Pico Rivera monitoring station was used to represent local weather conditions and prevailing winds (11).

TABLE 2-5: AERMOD MODEL PARAMETERS

Dispersion Coefficient (Urban/Rural)	Urban (population 9,818,605)
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 World Geodetic System (WGS) 84 were used to locate the Project site boundaries, each volume source location, and receptor locations in the Project vicinity. The AERMOD dispersion model summary output files for the Project are presented in Appendix 2.3. Modeled sensitive receptors were placed at residential and non-residential locations.

Receptors may be placed at applicable structure locations for residential and worker property and not necessarily the boundaries of the properties containing these uses because the human receptors (residents and workers) spend a majority of their time at the residence or in the workplace's building, and not on the property line. 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 residents, workers, and school children over a period of 30, 25, or 9 years of exposure, respectively. Notwithstanding, as a conservative measure, receptors were placed at either the outdoor living area or the building façade, whichever is closer to the Project site.

For purposes of this HRA, receptors include both residential and non-residential (worker) land uses in the vicinity of the Project. These receptors are included in the HRA since residents, workers, and school children may be exposed at these locations over a long-term duration of 30, 25, and 9 years, respectively. This methodology is consistent with SCAQMD and OEHHA recommended guidance.

Any impacts to residents or workers located further away from the Project site than the modeled residential and workers would have a lesser impact than what has already been disclosed in the HRA at the MEIR and MEIW because concentrations dissipate with distance.

All receptors were set to existing elevation height so that only ground-level concentrations are analyzed. United States Geological Survey (USGS) Digital Elevation Model (DEM) terrain data based on a 7.5-minute topographic quadrangle map series using AERMAP was utilized in the HRA modeling to set elevations (12).

Discrete variants for daily breathing rates, exposure frequency, and exposure duration were obtained from relevant distribution profiles presented in the 2015 OEHHA Guidelines. Tables 2-6 through 2-9 summarize the Exposure Parameters for residents, workers, and school children based on 2015 OEHHA Guidelines. Appendix 2.4 includes the detailed risk calculation.

TABLE 2-6: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (CONSTRUCTION ACTIVITY)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
0 to 2	1,090	10	1.00	1.00	250	8

TABLE 2-7: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (30 YEAR RESIDENTIAL)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
-0.25 to 0	361	10	0.25	0.85	350	24
0 to 2	1,090	10	2	0.85	350	24
2 to 16	572	3	14	0.72	350	24
16 to 30	261	1	14	0.73	350	24

TABLE 2-8: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (25 YEAR WORKER)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Exposure Frequency (days/year)	Exposure Time (hours/day)
16 to 41	230	1	25	250	12

TABLE 2-9: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (9 YEAR SCHOOL CHILD)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Exposure Frequency (days/year) [a]	Exposure Time (hours/day)
4 to 13	631	3	9	180	12

[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.

2.5 CARCINOGENIC CHEMICAL RISK

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 10 in one million implies a likelihood that up to 10 people, 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.

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.

$$DOSE_{AIR} = \left(C_{AIR} \times \frac{BR}{BW} \times A \times EF\right) \times (1 \times 10^{-6})$$

Where:

$DOSE_{AIR}$ = chronic daily intake (mg/kg/day)

C_{AIR} = concentration of contaminant in air ($\mu g/m^3$)

$\frac{BR}{BW}$ = 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 (µg to mg, L to m^3)

$$RISK_{AIR} = DOSE_{AIR} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

Where:

$DOSE_{AIR}$ = chronic daily intake (mg/kg/day)

CPF = cancer potency factor

ED = number of years within particular age group

AT = averaging time

2.6 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 µg/m^3 (13).

Non-cancer health effects are expressed as a hazard index (HI), which is calculated using the following equation:

$$HI_{DPM} = \frac{C_{DPM}}{REL_{DPM}}$$

Where:

HI_{DPM} = Hazard index (unitless)

C_{DPM} = Annual average DPM concentration (µg/m^3)

REL_{DPM} = REL for DPM (the DPM concentration at which no adverse health effects are anticipated).

2.7 POTENTIAL PROJECT DPM-SOURCE CANCER AND NON-CANCER RISKS

CONSTRUCTION IMPACTS

The land use with the greatest potential exposure to Project construction-source DPM emissions is Location R2 which is located approximately 85 feet east of the Project site at an existing residence located at 16102 Pocono Street. Since there are no private outdoor living areas (backyards) facing the Project site, R2 is placed at the building façade. At the MEIR, the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at 3.81 in one million, which is less than the SCAQMD significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. Location R2 is the nearest receptor to the Project site and due to meteorological conditions (wind speed and direction) at the site would experience the highest concentrations of DPM during Project construction. Because all other modeled receptors would experience lower concentrations of DPM during Project construction, all other receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for this location. The modeled receptors are illustrated on Exhibit 2-D.

OPERATIONAL IMPACTS

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R2 which is located approximately 85 feet east of the Project site at an existing residence located at 16102 Pocono Street. Since there are no private outdoor living areas (backyards) facing the Project site, R2 is placed at the building façade. At the MEIR, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 0.66 in one million, which is less than the SCAQMD significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Location R2 is the nearest receptor to the Project site and due to meteorological conditions (wind speed and direction) at the site would experience the highest concentrations of DPM during Project operation. Because all other modeled receptors are located at a greater distance than the MEIR analyzed herein, and DPM dissipates with distance from the source, all other receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project operational activity. All other receptors would experience less risk than what is identified for this location. The modeled receptors are illustrated on Exhibit 2-D.

Worker Exposure Scenario[4]*:*

The worker receptor land use with the greatest potential exposure to Project operational -source DPM emissions is Location R7, which represents the potential worker receptor located approximately 0.16 feet east of the Project site. At the MEIW, the maximum incremental cancer risk impact is 0.16 in one million which is less than the SCAQMD's threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be <0.01, which would not

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[4] 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.

exceed the applicable significance threshold of 1.0. Location R8 is the worker receptor that would experience the highest concentrations of DPM during Project operation due to meteorological conditions at the site. All other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby workers. The modeled receptors are illustrated on Exhibit 2-D.

School Child Exposure Scenario:

The nearest school is Workman High School, located approximately 1,645 feet south of the Project site and represented by Location R3. The MEISC is the school receptor that would experience the highest modeled concentrations of DPM, and thus the highest risk. At the MEISC, the maximum incremental cancer risk impact attributable to the Project is calculated to be 0.06 in one million, which is less than the significance threshold of 10 in one million. At this same location, non-cancer risks attributable to the Project were calculated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled school receptors would be exposed to lower concentrations of DPM, all other school receptors in the vicinity of the of the Project would be exposed to less emissions and therefore less risk than the MEISC identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby school children.

CONSTRUCTION AND OPERATIONAL IMPACTS

The land use with the greatest potential exposure to Project construction-source and operational-source DPM emissions is Location R2. At the MEIR, the maximum incremental cancer risk attributable to Project construction-source and operational-source DPM emissions is estimated at 4.29 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 <0.01, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to nearby residences. The modeled receptors are illustrated on Exhibit 2-D.

It should be noted that the receptors presented in Exhibit 2-D do not represent all modeled receptors.

EXHIBIT 2-D: RECEPTOR LOCATIONS

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,

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3 REFERENCES

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4 CERTIFICATIONS

The contents of this health risk assessment represent an accurate depiction of the impacts to sensitive receptors associated with the proposed Amar & Kaplan Avenue 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 at (949) 660-1994.

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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 Professionals
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 2.1:

CALEEMOD OUTPUTS

15271 - Amar & Kaplan (Construction Tier 4) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15271 - Amar & Kaplan (Construction Tier 4)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	22.4
Location	15940 Amar Rd, City of Industry, CA 91744, USA
County	Los Angeles-South Coast
City	Industry
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5073
EDFZ	7
Electric Utility	City of Industry
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	204	1000sqft	4.68	204,000	53,693	—	—	—
Parking Lot	312	Space	1.14	0.00	0.00	—	—	—

Other Asphalt Surfaces	4.26	Acre	4.26	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.40	1.09	26.8	40.3	0.10	0.32	4.36	4.68	0.31	1.43	1.75	—	12,414	12,414	0.57	0.93	13.6	12,719
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.40	52.6	27.1	40.1	0.10	0.43	5.90	6.00	0.41	2.74	2.85	—	12,401	12,401	0.57	0.93	0.35	12,693
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.71	3.42	10.4	18.2	0.03	0.16	1.62	1.78	0.15	0.44	0.59	—	4,372	4,372	0.19	0.23	2.50	4,448
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.13	0.62	1.90	3.32	0.01	0.03	0.30	0.33	0.03	0.08	0.11	—	724	724	0.03	0.04	0.41	736

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.40	1.09	26.8	40.3	0.10	0.32	4.36	4.68	0.31	1.43	1.75	—	12,414	12,414	0.57	0.93	13.6	12,719
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.40	52.6	27.1	40.1	0.10	0.43	5.90	6.00	0.41	2.74	2.85	—	12,401	12,401	0.57	0.93	0.35	12,693
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.71	3.42	10.4	18.2	0.03	0.16	1.62	1.78	0.15	0.44	0.59	—	4,372	4,372	0.19	0.23	2.50	4,448
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.13	0.62	1.90	3.32	0.01	0.03	0.30	0.33	0.03	0.08	0.11	—	724	724	0.03	0.04	0.41	736

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.56	12.0	18.2	0.03	0.37	—	0.37	0.35	—	0.35	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	3.41	3.41	—	0.52	0.52	—	—	—	—	—	—	—
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.99	1.49	< 0.005	0.03	—	0.03	0.03	—	0.03	—	282	282	0.01	< 0.005	—	282
Demolition	—	—	—	—	—	—	0.28	0.28	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.18	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.6	46.6	< 0.005	< 0.005	—	46.8
Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	129	129	0.01	0.02	0.01	135
Hauling	0.33	0.09	5.76	2.13	0.03	0.06	1.17	1.22	0.06	0.32	0.38	—	4,441	4,441	0.24	0.71	0.26	4,660
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.01	11.1
Hauling	0.03	0.01	0.48	0.17	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	365	365	0.02	0.06	0.36	383
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.77	2.77	< 0.005	< 0.005	< 0.005	2.81

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.76	1.76	< 0.005	< 0.005	< 0.005	1.83
Hauling	0.01	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	60.4	60.4	< 0.005	0.01	0.06	63.4

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.68	15.7	30.0	0.05	0.10	—	0.10	0.10	—	0.10	—	5,529	5,529	0.22	0.04	—	5,548
Dust From Material Movemen	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.43	0.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	151	151	0.01	< 0.005	—	152
Dust From Material Movemen	—	—	—	—	—	—	0.16	0.16	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.08	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	25.1	25.1	< 0.005	< 0.005	—	25.2
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.12	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	234	234	0.01	0.01	0.03	237
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.3	32.3	< 0.005	< 0.005	< 0.005	33.6
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.51	6.51	< 0.005	< 0.005	0.01	6.60
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.88	0.88	< 0.005	< 0.005	< 0.005	0.92
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.08	1.08	< 0.005	< 0.005	< 0.005	1.09
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.15	0.15	< 0.005	< 0.005	< 0.005	0.15
Hauling	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	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.88	20.0	36.2	0.06	0.26	—	0.26	0.25	—	0.25	—	6,715	6,715	0.27	0.05	—	6,738
Dust From Material Movemen	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.88	20.0	36.2	0.06	0.26	—	0.26	0.25	—	0.25	—	6,715	6,715	0.27	0.05	—	6,738
Dust From Material Movemen	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.64	2.97	0.01	0.02	—	0.02	0.02	—	0.02	—	552	552	0.02	< 0.005	—	554
Dust From Material Movemen	—	—	—	—	—	—	0.22	0.22	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.30	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	91.4	91.4	< 0.005	< 0.005	—	91.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.10	1.51	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	282	282	0.01	0.01	1.11	287
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	129	129	0.01	0.02	0.35	135
Hauling	0.40	0.11	6.62	2.55	0.03	0.07	1.39	1.46	0.07	0.38	0.45	—	5,288	5,288	0.28	0.85	12.2	5,560
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.11	1.28	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	268	268	0.01	0.01	0.03	271
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	129	129	0.01	0.02	0.01	135
Hauling	0.40	0.11	6.87	2.54	0.03	0.07	1.39	1.46	0.07	0.38	0.45	—	5,290	5,290	0.28	0.85	0.32	5,550
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.3	22.3	< 0.005	< 0.005	0.04	22.6
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.01	11.1
Hauling	0.03	0.01	0.57	0.21	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	435	435	0.02	0.07	0.43	456
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.70	3.70	< 0.005	< 0.005	0.01	3.75
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.76	1.76	< 0.005	< 0.005	< 0.005	1.83
Hauling	0.01	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	72.0	72.0	< 0.005	0.01	0.07	75.6

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	0.39	9.51	15.7	0.03	0.15	—	0.15	0.14	—	0.14	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	0.39	9.51	15.7	0.03	0.15	—	0.15	0.14	—	0.14	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.21	5.00	8.24	0.01	0.08	—	0.08	0.07	—	0.07	—	1,384	1,384	0.06	0.01	—	1,388
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.91	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	229	229	0.01	< 0.005	—	230
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.38	0.41	6.46	0.00	0.00	1.12	1.12	0.00	0.26	0.26	—	1,210	1,210	0.05	0.04	4.77	1,228
Vendor	0.06	0.02	0.91	0.45	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	774	774	0.03	0.11	2.10	809
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.42	0.38	0.49	5.46	0.00	0.00	1.12	1.12	0.00	0.26	0.26	—	1,147	1,147	0.05	0.04	0.12	1,161
Vendor	0.06	0.02	0.95	0.46	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	775	775	0.03	0.11	0.05	807
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.20	0.25	3.02	0.00	0.00	0.58	0.58	0.00	0.14	0.14	—	612	612	0.03	0.02	1.08	621
Vendor	0.03	0.01	0.50	0.24	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	407	407	0.02	0.06	0.47	425
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.05	0.55	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	101	101	< 0.005	< 0.005	0.18	103
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	67.4	67.4	< 0.005	0.01	0.08	70.4
Hauling	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	0.00

3.9. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.29	7.24	10.6	0.01	0.16	—	0.16	0.15	—	0.15	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.40	0.58	< 0.005	0.01	—	0.01	0.01	—	0.01	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.02	11.3
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.85	1.85	< 0.005	< 0.005	< 0.005	1.87
Vendor	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	0.00
Hauling	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	0.00

3.11. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.45	1.28	< 0.005	0.09	—	0.09	0.08	—	0.08	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	50.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.08	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.76	9.76	< 0.005	< 0.005	—	9.79
Architectural Coatings	—	2.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.62	1.62	< 0.005	< 0.005	—	1.62
Architectural Coatings	—	0.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.10	1.09	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	229	229	0.01	0.01	0.02	232
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.02	12.9
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.11	2.11	< 0.005	< 0.005	< 0.005	2.14
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2024	2/9/2024	5.00	30.0	—
Site Preparation	Site Preparation	2/12/2024	2/23/2024	5.00	10.0	—
Grading	Grading	2/26/2024	4/5/2024	5.00	30.0	—
Building Construction	Building Construction	4/8/2024	12/31/2024	5.00	192	—
Paving	Paving	12/4/2024	12/31/2024	5.00	20.0	—
Architectural Coating	Architectural Coating	12/4/2024	12/31/2024	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 3	1.00	8.00	33.0	0.73

Demolition	Excavators	Diesel	Tier 3	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Tier 4 Interim	4.00	8.00	87.0	0.43
Grading	Excavators	Diesel	Tier 3	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Tier 4 Interim	2.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 3	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 3	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 3	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 3	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	4.00	10.2	HHDT,MHDT
Demolition	Hauling	63.0	20.0	HHDT

Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	1.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	4.00	10.2	HHDT,MHDT
Grading	Hauling	75.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	85.7	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.1	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	306,000	102,000	14,113

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	164,259	—
Site Preparation	—	—	35.0	0.00	—
Grading	—	18,000	120	0.00	—
Paving	0.00	0.00	0.00	0.00	5.40

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt

Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.14	100%
Other Asphalt Surfaces	4.26	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	453	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.5	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	71.7

AQ-PM	82.9
AQ-DPM	25.3
Drinking Water	86.5
Lead Risk Housing	89.9
Pesticides	0.00
Toxic Releases	80.9
Traffic	60.1
Effect Indicators	—
CleanUp Sites	18.7
Groundwater	51.2
Haz Waste Facilities/Generators	2.51
Impaired Water Bodies	58.7
Solid Waste	52.9
Sensitive Population	—
Asthma	71.8
Cardio-vascular	69.9
Low Birth Weights	62.6
Socioeconomic Factor Indicators	—
Education	83.8
Housing	6.89
Linguistic	78.5
Poverty	41.0
Unemployment	65.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	62.47914795
Employed	76.78686
Median HI	58.32157064
Education	—
Bachelor's or higher	25.63839343
High school enrollment	100
Preschool enrollment	49.42897472
Transportation	—
Auto Access	70.20402926
Active commuting	30.7583729
Social	—
2-parent households	55.67817272
Voting	27.97382266
Neighborhood	—
Alcohol availability	67.1885025
Park access	16.07853202
Retail density	30.41190812
Supermarket access	60.50301553
Tree canopy	18.49095342
Housing	—
Homeownership	83.7931477
Housing habitability	87.96355704
Low-inc homeowner severe housing cost burden	52.21352496
Low-inc renter severe housing cost burden	99.08892596
Uncrowded housing	18.58077762
Health Outcomes	—

Insured adults	23.55960477
Arthritis	0.0
Asthma ER Admissions	22.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	57.6
Cognitively Disabled	30.7
Physically Disabled	46.5
Heart Attack ER Admissions	19.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	61.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	76.4

Elderly	76.6
English Speaking	29.8
Foreign-born	64.8
Outdoor Workers	73.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	43.7
Traffic Density	47.1
Traffic Access	70.1
Other Indices	—
Hardship	65.2
Other Decision Support	—
2016 Voting	28.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	78.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Building Construction compressed to account for 2024 Opening Year Building, Paving, and Architectural Coating overlap to present a conservative analysis
Construction: Off-Road Equipment	T/L/Bs replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases Standard 8 hours work days PDF: off-road diesel construction equipment rated at 50 horsepower (hp) or greater, will comply with Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 off-road emissions standards or equivalent.
Construction: Architectural Coatings	SCAQMD Rule 1113
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction

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APPENDIX 2.2:

EMFAC EMISSIONS SUMMARY

Emissions	Phase	Lb/Day	# Days	Emissions	Avg/Lb Day	Avg/Hourly
On-Site	Demolition	0.37	30	11.1	0.37	0.04625
Exhaust PM-10	Site Preparation	0.10	10	1	0.1	0.0125
	Grading	0.26	30	7.8	0.26	0.0325
	Building Construction	0.15	192	28.8	0.15	0.01875
	Paving	0.16	20	3.2	0.16	0.02
	Architectural Coatings	0.09	20	1.8	0.09	0.01125
		1.13	262	53.7	0.204961832	0.025620229
Off-Site	Demolition	6.50E-02	30	1.95	0.065	0.008125
Exhaust PM-10	Site Preparation	5.00E-03	10	0.05	0.005	0.000625
	Grading	7.50E-02	30	2.25	0.075	0.009375
	Building Construction	1.00E-02	192	1.92	0.01	0.00125
	Paving	0.00E+00	20	0	0	0
	Architectural Coatings	0.00E+00	20	0	0	0
		1.55E-01	262	6.17	0.023549618	0.002943702

Phase	Start Date	End Date	No. Days
Demolition	1/1/2024	2/9/2024	30
Site Preparation	2/12/2024	2/23/2024	10
Grading	2/26/2024	4/5/2024	30
Building Construction	4/8/2024	12/31/2024	192
Paving	12/4/2024	12/31/2024	20
Architectural Coatings	12/4/2024	12/31/2024	20
		Total Days of Construction	**262**

AVERAGE EMISSION FACTOR
LOS ANGELES COUNTY 2025

Speed	LHD1	LHD2	MHD	HHD
0	0.258157	0.47588	0.050933	0.01376
5	0.020324	0.037098	0.033268	0.01310
25	0.009621	0.017856	0.008695	0.00638

Speed	**Weighted Average Emissions**
0	**0.06848**
5	**0.01896**
25	**0.00765**

Truck Emission Rates

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	61			0.0685	1.04	1.209E-05
On-Site Travel - 100%	122	28.57	0.0190		0.54	6.269E-06
Off-Site Travel - Amar W. 50%	61	45.85	0.0077		0.35	4.062E-06
Off-Site Travel - Echelon 50%	61	5.79	0.0077		0.04	5.131E-07
Off-Site Travel - Amar E. 50%	61	76.38	0.0077		0.58	6.767E-06

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2021. 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.

calendar_y	season_m	sub_area	vehicle_class	fuel	temperatur	relative_hu	process	speed_tim	pollutant	emission_rate
2025	Annual	Los Angele	HHDT	Dsl	60	70	RUNEX	5	PM10	0.014557
2025	Annual	Los Angele	HHDT	Dsl	60	70	RUNEX	25	PM10	0.007096
2025	Annual	Los Angele	LHDT1	Dsl	60	70	RUNEX	5	PM10	0.0632
2025	Annual	Los Angele	LHDT1	Dsl	60	70	RUNEX	25	PM10	0.029919
2025	Annual	Los Angele	LHDT2	Dsl	60	70	RUNEX	5	PM10	0.063353
2025	Annual	Los Angele	LHDT2	Dsl	60	70	RUNEX	25	PM10	0.030492
2025	Annual	Los Angele	MHDT	Dsl	60	70	RUNEX	5	PM10	0.041169
2025	Annual	Los Angele	MHDT	Dsl	60	70	RUNEX	25	PM10	0.01076

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar `	Vehicle Ca	Model Yea	Speed	Fuel	Population
Los Angel	2025	HHDT	Aggregate	Aggregate	Gasoline	38.0097
Los Angel	2025	HHDT	Aggregate	Aggregate	Diesel	53941.6
Los Angel	2025	HHDT	Aggregate	Aggregate	Natural Ga	5971.19
Los Angel	2025	LHDT1	Aggregate	Aggregate	Gasoline	123870
Los Angel	2025	LHDT1	Aggregate	Aggregate	Diesel	58715.7
Los Angel	2025	LHDT2	Aggregate	Aggregate	Gasoline	18894.5
Los Angel	2025	LHDT2	Aggregate	Aggregate	Diesel	26698.1
Los Angel	2025	MHDT	Aggregate	Aggregate	Gasoline	14351
Los Angel	2025	MHDT	Aggregate	Aggregate	Diesel	60424.5
Los Angel	2025	MHDT	Aggregate	Aggregate	Natural Ga	931.986

HHDT% GAS/NG	0.10024
HHDT% DSL	0.89976
LHDT1% GAS	0.67842
LHDT1% DSL	0.32158
LHDT2% GAS	0.41442
LHDT2% DSL	0.58558
MHDT% GAS	0.19192
MHDT% DSL	0.80808

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APPENDIX 2.3:

AERMOD MODEL INPUT/OUTPUT

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.2.0
** Lakes Environmental Software Inc.
** Date: 8/24/2023
** File: C:\Users\Michael Tirohn\Desktop\HRAs\15271 Amar Kaplan\15271-02 CONS
HRA\15271-02 CONS HRA.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\15271-02 OPS HRA\15271-02 OPS HRA.isc
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "15271-02 CONS HRA.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 = SLINE3
** DESCRSRC Amar W 50%
** PREFIX
** Length of Side = 14.00
** Configuration = Adjacent
** Emission Rate = 0.0001854501
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 3
** 413514.421, 3766573.965, 105.48, 3.49, 6.51
** 412575.065, 3766656.666, 101.17, 3.49, 6.51
** 412309.798, 3766684.753, 100.31, 3.49, 6.51
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   LOCATION L0001345     VOLUME   413493.502 3766575.807 105.25
   LOCATION L0001346     VOLUME   413479.556 3766577.035 105.13
   LOCATION L0001347     VOLUME   413465.610 3766578.262 105.00
   LOCATION L0001348     VOLUME   413451.664 3766579.490 104.88
   LOCATION L0001349     VOLUME   413437.718 3766580.718 104.73
   LOCATION L0001350     VOLUME   413423.772 3766581.946 104.56
   LOCATION L0001351     VOLUME   413409.826 3766583.174 104.51
   LOCATION L0001352     VOLUME   413395.880 3766584.401 104.49
   LOCATION L0001353     VOLUME   413381.934 3766585.629 104.56
   LOCATION L0001354     VOLUME   413367.987 3766586.857 104.59
   LOCATION L0001355     VOLUME   413354.041 3766588.085 104.39
   LOCATION L0001356     VOLUME   413340.095 3766589.313 104.25
   LOCATION L0001357     VOLUME   413326.149 3766590.540 104.21
   LOCATION L0001358     VOLUME   413312.203 3766591.768 104.18
   LOCATION L0001359     VOLUME   413298.257 3766592.996 104.16
   LOCATION L0001360     VOLUME   413284.311 3766594.224 104.11
   LOCATION L0001361     VOLUME   413270.365 3766595.452 104.06
   LOCATION L0001362     VOLUME   413256.419 3766596.680 104.04
   LOCATION L0001363     VOLUME   413242.473 3766597.907 104.01
   LOCATION L0001364     VOLUME   413228.527 3766599.135 103.95
   LOCATION L0001365     VOLUME   413214.581 3766600.363 103.90
   LOCATION L0001366     VOLUME   413200.635 3766601.591 103.86
   LOCATION L0001367     VOLUME   413186.689 3766602.819 103.81
   LOCATION L0001368     VOLUME   413172.743 3766604.046 103.76
   LOCATION L0001369     VOLUME   413158.797 3766605.274 103.73
   LOCATION L0001370     VOLUME   413144.851 3766606.502 103.70
   LOCATION L0001371     VOLUME   413130.904 3766607.730 103.66
   LOCATION L0001372     VOLUME   413116.958 3766608.958 103.60
   LOCATION L0001373     VOLUME   413103.012 3766610.185 103.54
   LOCATION L0001374     VOLUME   413089.066 3766611.413 103.48
   LOCATION L0001375     VOLUME   413075.120 3766612.641 103.40
   LOCATION L0001376     VOLUME   413061.174 3766613.869 103.33
   LOCATION L0001377     VOLUME   413047.228 3766615.097 103.27
   LOCATION L0001378     VOLUME   413033.282 3766616.324 103.22
   LOCATION L0001379     VOLUME   413019.336 3766617.552 103.22
   LOCATION L0001380     VOLUME   413005.390 3766618.780 103.22
   LOCATION L0001381     VOLUME   412991.444 3766620.008 103.18
   LOCATION L0001382     VOLUME   412977.498 3766621.236 103.14
   LOCATION L0001383     VOLUME   412963.552 3766622.464 103.08
   LOCATION L0001384     VOLUME   412949.606 3766623.691 103.02
   LOCATION L0001385     VOLUME   412935.660 3766624.919 102.95
   LOCATION L0001386     VOLUME   412921.714 3766626.147 102.86
   LOCATION L0001387     VOLUME   412907.768 3766627.375 102.78
   LOCATION L0001388     VOLUME   412893.822 3766628.603 102.73
   LOCATION L0001389     VOLUME   412879.875 3766629.830 102.67
   LOCATION L0001390     VOLUME   412865.929 3766631.058 102.58
   LOCATION L0001391     VOLUME   412851.983 3766632.286 102.52
   LOCATION L0001392     VOLUME   412838.037 3766633.514 102.48
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   LOCATION L0001393     VOLUME   412824.091 3766634.742 102.43
   LOCATION L0001394     VOLUME   412810.145 3766635.969 102.37
   LOCATION L0001395     VOLUME   412796.199 3766637.197 102.29
   LOCATION L0001396     VOLUME   412782.253 3766638.425 102.22
   LOCATION L0001397     VOLUME   412768.307 3766639.653 102.17
   LOCATION L0001398     VOLUME   412754.361 3766640.881 102.12
   LOCATION L0001399     VOLUME   412740.415 3766642.108 102.01
   LOCATION L0001400     VOLUME   412726.469 3766643.336 101.91
   LOCATION L0001401     VOLUME   412712.523 3766644.564 101.82
   LOCATION L0001402     VOLUME   412698.577 3766645.792 101.72
   LOCATION L0001403     VOLUME   412684.631 3766647.020 101.57
   LOCATION L0001404     VOLUME   412670.685 3766648.247 101.47
   LOCATION L0001405     VOLUME   412656.739 3766649.475 101.42
   LOCATION L0001406     VOLUME   412642.793 3766650.703 101.36
   LOCATION L0001407     VOLUME   412628.846 3766651.931 101.31
   LOCATION L0001408     VOLUME   412614.900 3766653.159 101.27
   LOCATION L0001409     VOLUME   412600.954 3766654.387 101.23
   LOCATION L0001410     VOLUME   412587.008 3766655.614 101.18
   LOCATION L0001411     VOLUME   412573.066 3766656.878 101.11
   LOCATION L0001412     VOLUME   412559.143 3766658.352 101.02
   LOCATION L0001413     VOLUME   412545.221 3766659.826 100.94
   LOCATION L0001414     VOLUME   412531.299 3766661.300 100.92
   LOCATION L0001415     VOLUME   412517.377 3766662.774 100.90
   LOCATION L0001416     VOLUME   412503.455 3766664.248 100.87
   LOCATION L0001417     VOLUME   412489.533 3766665.722 100.86
   LOCATION L0001418     VOLUME   412475.610 3766667.196 100.85
   LOCATION L0001419     VOLUME   412461.688 3766668.670 100.85
   LOCATION L0001420     VOLUME   412447.766 3766670.145 100.85
   LOCATION L0001421     VOLUME   412433.844 3766671.619 100.89
   LOCATION L0001422     VOLUME   412419.922 3766673.093 100.91
   LOCATION L0001423     VOLUME   412406.000 3766674.567 100.85
   LOCATION L0001424     VOLUME   412392.077 3766676.041 100.81
   LOCATION L0001425     VOLUME   412378.155 3766677.515 100.78
   LOCATION L0001426     VOLUME   412364.233 3766678.989 100.72
   LOCATION L0001427     VOLUME   412350.311 3766680.463 100.62
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   LOCATION L0001429     VOLUME   412322.467 3766683.412 100.40
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** LINE VOLUME Source ID = SLINE4
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** PREFIX
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** Configuration = Adjacent
** Emission Rate = 0.0001854501
** Vertical Dimension = 6.99
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** Nodes = 3
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** 413726.188, 3766550.438, 107.45, 3.49, 4.00
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   LOCATION L0001432     VOLUME   413715.231 3766419.616 107.31
   LOCATION L0001433     VOLUME   413715.968 3766428.174 107.25
   LOCATION L0001434     VOLUME   413716.705 3766436.732 107.19
   LOCATION L0001435     VOLUME   413717.442 3766445.291 107.14
   LOCATION L0001436     VOLUME   413718.179 3766453.849 107.18
   LOCATION L0001437     VOLUME   413718.916 3766462.407 107.24
   LOCATION L0001438     VOLUME   413719.653 3766470.966 107.29
   LOCATION L0001439     VOLUME   413720.390 3766479.524 107.32
   LOCATION L0001440     VOLUME   413721.127 3766488.082 107.27
   LOCATION L0001441     VOLUME   413721.864 3766496.641 107.24
   LOCATION L0001442     VOLUME   413722.601 3766505.199 107.20
   LOCATION L0001443     VOLUME   413723.338 3766513.757 107.23
   LOCATION L0001444     VOLUME   413724.075 3766522.316 107.28
   LOCATION L0001445     VOLUME   413724.812 3766530.874 107.33
   LOCATION L0001446     VOLUME   413725.549 3766539.432 107.38
   LOCATION L0001447     VOLUME   413726.051 3766548.007 107.39
** End of LINE VOLUME Source ID = SLINE4
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** PREFIX
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** Configuration = Adjacent
** Emission Rate = 0.0001854501
** Vertical Dimension = 6.99
** SZINIT = 3.25
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** 413885.693, 3766557.527, 110.76, 3.49, 6.51
** 413952.251, 3766550.438, 112.12, 3.49, 6.51
** 414051.302, 3766541.774, 112.99, 3.49, 6.51
** 414170.438, 3766530.549, 113.78, 3.49, 6.51
** 414278.152, 3766521.097, 113.08, 3.49, 6.51
** 414358.298, 3766514.205, 113.49, 3.49, 6.51
** 414438.838, 3766506.722, 114.01, 3.49, 6.51
** 414568.411, 3766494.316, 115.69, 3.49, 6.51
** 414731.854, 3766480.138, 118.11, 3.49, 6.51
** 414797.034, 3766474.034, 118.43, 3.49, 6.51
** 414956.341, 3766459.856, 121.23, 3.49, 6.51
** 415005.571, 3766455.917, 122.08, 3.49, 6.51
** 415066.222, 3766448.237, 122.83, 3.49, 6.51
** 415117.618, 3766436.619, 124.11, 3.49, 6.51
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** 415165.075, 3766418.503, 126.26, 3.49, 6.51
** 415231.437, 3766385.814, 129.55, 3.49, 6.51
** 415256.249, 3766364.744, 130.15, 3.49, 6.51
** 415289.922, 3766338.160, 131.49, 3.49, 6.51
** 415340.530, 3766287.551, 134.06, 3.49, 6.51
** 415364.161, 3766255.060, 135.75, 3.49, 6.51
** 415407.680, 3766179.837, 137.69, 3.49, 6.51
** 415424.024, 3766154.040, 137.45, 3.49, 6.51
** 415442.140, 3766123.518, 137.52, 3.49, 6.51
** 415484.281, 3766072.713, 136.83, 3.49, 6.51
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** 415547.492, 3766014.031, 136.52, 3.49, 6.51
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   LOCATION L0001451     VOLUME   413775.187 3766560.309 108.44
   LOCATION L0001452     VOLUME   413789.187 3766560.203 108.74
   LOCATION L0001453     VOLUME   413803.186 3766560.098 109.09
   LOCATION L0001454     VOLUME   413817.186 3766560.031 109.46
   LOCATION L0001455     VOLUME   413831.186 3766559.968 109.82
   LOCATION L0001456     VOLUME   413845.186 3766559.905 110.02
   LOCATION L0001457     VOLUME   413859.164 3766559.212 110.23
   LOCATION L0001458     VOLUME   413873.136 3766558.325 110.54
   LOCATION L0001459     VOLUME   413887.103 3766557.377 110.86
   LOCATION L0001460     VOLUME   413901.024 3766555.894 111.18
   LOCATION L0001461     VOLUME   413914.945 3766554.412 111.45
   LOCATION L0001462     VOLUME   413928.867 3766552.929 111.66
   LOCATION L0001463     VOLUME   413942.788 3766551.446 111.89
   LOCATION L0001464     VOLUME   413956.717 3766550.048 112.12
   LOCATION L0001465     VOLUME   413970.664 3766548.828 112.32
   LOCATION L0001466     VOLUME   413984.611 3766547.608 112.51
   LOCATION L0001467     VOLUME   413998.557 3766546.388 112.62
   LOCATION L0001468     VOLUME   414012.504 3766545.168 112.73
   LOCATION L0001469     VOLUME   414026.451 3766543.948 112.88
   LOCATION L0001470     VOLUME   414040.398 3766542.728 113.02
   LOCATION L0001471     VOLUME   414054.343 3766541.487 113.13
   LOCATION L0001472     VOLUME   414068.281 3766540.174 113.22
   LOCATION L0001473     VOLUME   414082.219 3766538.861 113.31
   LOCATION L0001474     VOLUME   414096.157 3766537.548 113.41
   LOCATION L0001475     VOLUME   414110.096 3766536.235 113.52
   LOCATION L0001476     VOLUME   414124.034 3766534.921 113.59
   LOCATION L0001477     VOLUME   414137.972 3766533.608 113.65
   LOCATION L0001478     VOLUME   414151.910 3766532.295 113.72
   LOCATION L0001479     VOLUME   414165.849 3766530.982 113.78
   LOCATION L0001480     VOLUME   414179.792 3766529.729 113.75
   LOCATION L0001481     VOLUME   414193.739 3766528.505 113.71
   LOCATION L0001482     VOLUME   414207.685 3766527.281 113.65
   LOCATION L0001483     VOLUME   414221.632 3766526.057 113.54
   LOCATION L0001484     VOLUME   414235.578 3766524.833 113.35
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LOCATION L0001486     VOLUME   414263.471 3766522.386 113.21
LOCATION L0001487     VOLUME   414277.417 3766521.162 113.15
LOCATION L0001488     VOLUME   414291.366 3766519.961 113.07
LOCATION L0001489     VOLUME   414305.314 3766518.762 113.15
LOCATION L0001490     VOLUME   414319.263 3766517.562 113.25
LOCATION L0001491     VOLUME   414333.211 3766516.363 113.51
LOCATION L0001492     VOLUME   414347.160 3766515.163 113.67
LOCATION L0001493     VOLUME   414361.107 3766513.944 113.63
LOCATION L0001494     VOLUME   414375.047 3766512.649 113.63
LOCATION L0001495     VOLUME   414388.987 3766511.354 113.70
LOCATION L0001496     VOLUME   414402.926 3766510.059 113.80
LOCATION L0001497     VOLUME   414416.866 3766508.764 113.91
LOCATION L0001498     VOLUME   414430.806 3766507.468 113.97
LOCATION L0001499     VOLUME   414444.745 3766506.157 114.05
LOCATION L0001500     VOLUME   414458.681 3766504.822 114.26
LOCATION L0001501     VOLUME   414472.617 3766503.488 114.44
LOCATION L0001502     VOLUME   414486.554 3766502.154 114.56
LOCATION L0001503     VOLUME   414500.490 3766500.819 114.72
LOCATION L0001504     VOLUME   414514.426 3766499.485 114.91
LOCATION L0001505     VOLUME   414528.362 3766498.151 115.10
LOCATION L0001506     VOLUME   414542.299 3766496.816 115.28
LOCATION L0001507     VOLUME   414556.235 3766495.482 115.44
LOCATION L0001508     VOLUME   414570.173 3766494.163 115.59
LOCATION L0001509     VOLUME   414584.120 3766492.954 115.79
LOCATION L0001510     VOLUME   414598.068 3766491.744 116.04
LOCATION L0001511     VOLUME   414612.016 3766490.534 116.22
LOCATION L0001512     VOLUME   414625.963 3766489.324 116.40
LOCATION L0001513     VOLUME   414639.911 3766488.114 116.49
LOCATION L0001514     VOLUME   414653.858 3766486.904 116.60
LOCATION L0001515     VOLUME   414667.806 3766485.694 116.75
LOCATION L0001516     VOLUME   414681.754 3766484.484 116.93
LOCATION L0001517     VOLUME   414695.701 3766483.274 117.18
LOCATION L0001518     VOLUME   414709.649 3766482.064 117.56
LOCATION L0001519     VOLUME   414723.596 3766480.854 117.99
LOCATION L0001520     VOLUME   414737.541 3766479.606 118.19
LOCATION L0001521     VOLUME   414751.480 3766478.300 118.29
LOCATION L0001522     VOLUME   414765.419 3766476.995 118.43
LOCATION L0001523     VOLUME   414779.358 3766475.689 118.60
LOCATION L0001524     VOLUME   414793.297 3766474.384 118.74
LOCATION L0001525     VOLUME   414807.240 3766473.125 118.91
LOCATION L0001526     VOLUME   414821.185 3766471.884 119.12
LOCATION L0001527     VOLUME   414835.130 3766470.643 119.32
LOCATION L0001528     VOLUME   414849.075 3766469.402 119.52
LOCATION L0001529     VOLUME   414863.019 3766468.161 119.73
LOCATION L0001530     VOLUME   414876.964 3766466.920 119.96
LOCATION L0001531     VOLUME   414890.909 3766465.679 120.20
LOCATION L0001532     VOLUME   414904.854 3766464.438 120.45
LOCATION L0001533     VOLUME   414918.799 3766463.197 120.68
LOCATION L0001534     VOLUME   414932.744 3766461.956 120.90
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LOCATION L0001535     VOLUME   414946.689 3766460.715 121.13
LOCATION L0001536     VOLUME   414960.637 3766459.512 121.36
LOCATION L0001537     VOLUME   414974.592 3766458.395 121.57
LOCATION L0001538     VOLUME   414988.548 3766457.279 121.80
LOCATION L0001539     VOLUME   415002.503 3766456.163 122.08
LOCATION L0001540     VOLUME   415016.407 3766454.545 122.37
LOCATION L0001541     VOLUME   415030.296 3766452.786 122.64
LOCATION L0001542     VOLUME   415044.185 3766451.028 122.84
LOCATION L0001543     VOLUME   415058.074 3766449.269 122.94
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LOCATION L0001545     VOLUME   415085.522 3766443.874 123.31
LOCATION L0001546     VOLUME   415099.177 3766440.788 123.74
LOCATION L0001547     VOLUME   415112.833 3766437.701 124.21
LOCATION L0001548     VOLUME   415126.114 3766433.376 124.67
LOCATION L0001549     VOLUME   415139.194 3766428.383 125.28
LOCATION L0001550     VOLUME   415152.273 3766423.390 125.83
LOCATION L0001551     VOLUME   415165.341 3766418.372 126.39
LOCATION L0001552     VOLUME   415177.900 3766412.185 127.00
LOCATION L0001553     VOLUME   415190.459 3766405.999 127.27
LOCATION L0001554     VOLUME   415203.018 3766399.813 127.69
LOCATION L0001555     VOLUME   415215.577 3766393.626 128.35
LOCATION L0001556     VOLUME   415228.136 3766387.440 129.01
LOCATION L0001557     VOLUME   415239.304 3766379.133 129.29
LOCATION L0001558     VOLUME   415249.975 3766370.071 129.57
LOCATION L0001559     VOLUME   415260.777 3766361.169 130.20
LOCATION L0001560     VOLUME   415271.766 3766352.494 130.72
LOCATION L0001561     VOLUME   415282.754 3766343.819 131.17
LOCATION L0001562     VOLUME   415293.364 3766334.718 131.62
LOCATION L0001563     VOLUME   415303.263 3766324.818 132.07
LOCATION L0001564     VOLUME   415313.163 3766314.919 132.54
LOCATION L0001565     VOLUME   415323.062 3766305.019 133.06
LOCATION L0001566     VOLUME   415332.962 3766295.120 133.58
LOCATION L0001567     VOLUME   415342.469 3766284.885 134.22
LOCATION L0001568     VOLUME   415350.704 3766273.563 134.52
LOCATION L0001569     VOLUME   415358.938 3766262.241 134.96
LOCATION L0001570     VOLUME   415366.725 3766250.627 135.59
LOCATION L0001571     VOLUME   415373.736 3766238.509 136.03
LOCATION L0001572     VOLUME   415380.746 3766226.391 136.27
LOCATION L0001573     VOLUME   415387.757 3766214.273 136.51
LOCATION L0001574     VOLUME   415394.768 3766202.155 137.25
LOCATION L0001575     VOLUME   415401.779 3766190.037 137.45
LOCATION L0001576     VOLUME   415408.866 3766177.965 137.12
LOCATION L0001577     VOLUME   415416.358 3766166.139 137.36
LOCATION L0001578     VOLUME   415423.851 3766154.313 137.60
LOCATION L0001579     VOLUME   415431.005 3766142.278 137.33
LOCATION L0001580     VOLUME   415438.151 3766130.239 137.36
LOCATION L0001581     VOLUME   415446.088 3766118.758 137.49
LOCATION L0001582     VOLUME   415455.026 3766107.983 137.39
LOCATION L0001583     VOLUME   415463.964 3766097.207 137.31
LOCATION L0001584     VOLUME   415472.902 3766086.432 137.21
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   LOCATION L0001585     VOLUME   415481.840 3766075.656 137.07
   LOCATION L0001586     VOLUME   415491.477 3766065.517 136.90
   LOCATION L0001587     VOLUME   415501.376 3766055.618 136.65
   LOCATION L0001588     VOLUME   415511.338 3766045.785 136.48
   LOCATION L0001589     VOLUME   415521.857 3766036.546 136.51
   LOCATION L0001590     VOLUME   415532.376 3766027.308 136.49
   LOCATION L0001591     VOLUME   415542.895 3766018.069 136.47
** End of LINE VOLUME Source ID = SLINE5
   LOCATION VOL1         VOLUME     413528.510  3766537.260      106.120
   LOCATION VOL2         VOLUME     413569.628  3766534.004      106.030
   LOCATION VOL3         VOLUME     413610.743  3766528.990      106.200
   LOCATION VOL4         VOLUME     413651.356  3766524.978      106.510
   LOCATION VOL5         VOLUME     413692.219  3766524.477      106.570
   LOCATION VOL6         VOLUME     413524.500  3766499.957      106.050
   LOCATION VOL7         VOLUME     413565.618  3766496.700      106.170
   LOCATION VOL8         VOLUME     413606.732  3766491.686      106.330
   LOCATION VOL9         VOLUME     413647.345  3766487.675      106.530
   LOCATION VOL10        VOLUME     413688.209  3766487.174      106.770
   LOCATION VOL11        VOLUME     413521.742  3766462.102      106.070
   LOCATION VOL12        VOLUME     413562.860  3766458.845      106.060
   LOCATION VOL13        VOLUME     413603.975  3766453.831      106.320
   LOCATION VOL14        VOLUME     413644.587  3766449.820      106.400
   LOCATION VOL15        VOLUME     413685.451  3766449.319      106.690
   LOCATION VOL16        VOLUME     413518.734  3766423.745      105.440
   LOCATION VOL17        VOLUME     413559.852  3766420.489      105.670
   LOCATION VOL18        VOLUME     413600.966  3766415.475      105.840
   LOCATION VOL19        VOLUME     413641.579  3766411.463      106.010
   LOCATION VOL20        VOLUME     413682.443  3766410.962      106.670
   LOCATION VOL21        VOLUME     413513.720  3766385.890      105.900
   LOCATION VOL22        VOLUME     413554.838  3766382.633      105.860
   LOCATION VOL23        VOLUME     413595.952  3766377.619      106.430
   LOCATION VOL24        VOLUME     413636.565  3766373.608      106.400
   LOCATION VOL25        VOLUME     413511.968  3766372.053      105.670
   LOCATION VOL26        VOLUME     413552.330  3766368.293      105.830
   LOCATION VOL27        VOLUME     413593.445  3766366.538      106.400
   LOCATION VOL28        VOLUME     413635.060  3766360.772      106.380
** Source Parameters **
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0001344     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001345     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001346     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001347     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001348     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001349     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001350     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001351     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001352     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001353     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001354     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001355     0.000002156      3.49      6.51      3.25
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SRCPARAM L0001356     0.000002156      3.49       6.51       3.25
SRCPARAM L0001357     0.000002156      3.49       6.51       3.25
SRCPARAM L0001358     0.000002156      3.49       6.51       3.25
SRCPARAM L0001359     0.000002156      3.49       6.51       3.25
SRCPARAM L0001360     0.000002156      3.49       6.51       3.25
SRCPARAM L0001361     0.000002156      3.49       6.51       3.25
SRCPARAM L0001362     0.000002156      3.49       6.51       3.25
SRCPARAM L0001363     0.000002156      3.49       6.51       3.25
SRCPARAM L0001364     0.000002156      3.49       6.51       3.25
SRCPARAM L0001365     0.000002156      3.49       6.51       3.25
SRCPARAM L0001366     0.000002156      3.49       6.51       3.25
SRCPARAM L0001367     0.000002156      3.49       6.51       3.25
SRCPARAM L0001368     0.000002156      3.49       6.51       3.25
SRCPARAM L0001369     0.000002156      3.49       6.51       3.25
SRCPARAM L0001370     0.000002156      3.49       6.51       3.25
SRCPARAM L0001371     0.000002156      3.49       6.51       3.25
SRCPARAM L0001372     0.000002156      3.49       6.51       3.25
SRCPARAM L0001373     0.000002156      3.49       6.51       3.25
SRCPARAM L0001374     0.000002156      3.49       6.51       3.25
SRCPARAM L0001375     0.000002156      3.49       6.51       3.25
SRCPARAM L0001376     0.000002156      3.49       6.51       3.25
SRCPARAM L0001377     0.000002156      3.49       6.51       3.25
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SRCPARAM L0001379     0.000002156      3.49       6.51       3.25
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SRCPARAM L0001382     0.000002156      3.49       6.51       3.25
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SRCPARAM L0001387     0.000002156      3.49       6.51       3.25
SRCPARAM L0001388     0.000002156      3.49       6.51       3.25
SRCPARAM L0001389     0.000002156      3.49       6.51       3.25
SRCPARAM L0001390     0.000002156      3.49       6.51       3.25
SRCPARAM L0001391     0.000002156      3.49       6.51       3.25
SRCPARAM L0001392     0.000002156      3.49       6.51       3.25
SRCPARAM L0001393     0.000002156      3.49       6.51       3.25
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   SRCPARAM L0001408     0.000002156      3.49      6.51      3.25
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   SRCPARAM L0001419     0.000002156      3.49      6.51      3.25
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   SRCPARAM L0001427     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001428     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001429     0.000002156      3.49      6.51      3.25
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   SRCPARAM L0001430     0.0000103028      3.49      4.00      3.25
   SRCPARAM L0001431     0.0000103028      3.49      4.00      3.25
   SRCPARAM L0001432     0.0000103028      3.49      4.00      3.25
   SRCPARAM L0001433     0.0000103028      3.49      4.00      3.25
   SRCPARAM L0001434     0.0000103028      3.49      4.00      3.25
   SRCPARAM L0001435     0.0000103028      3.49      4.00      3.25
   SRCPARAM L0001436     0.0000103028      3.49      4.00      3.25
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   SRCPARAM L0001447     0.0000103028      3.49      4.00      3.25
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** LINE VOLUME Source ID = SLINE5
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SRCPARAM L0001521     0.000001288       3.49       6.51       3.25
SRCPARAM L0001522     0.000001288       3.49       6.51       3.25
SRCPARAM L0001523     0.000001288       3.49       6.51       3.25
SRCPARAM L0001524     0.000001288       3.49       6.51       3.25
SRCPARAM L0001525     0.000001288       3.49       6.51       3.25
SRCPARAM L0001526     0.000001288       3.49       6.51       3.25
SRCPARAM L0001527     0.000001288       3.49       6.51       3.25
SRCPARAM L0001528     0.000001288       3.49       6.51       3.25
SRCPARAM L0001529     0.000001288       3.49       6.51       3.25
SRCPARAM L0001530     0.000001288       3.49       6.51       3.25
SRCPARAM L0001531     0.000001288       3.49       6.51       3.25
SRCPARAM L0001532     0.000001288       3.49       6.51       3.25
SRCPARAM L0001533     0.000001288       3.49       6.51       3.25
SRCPARAM L0001534     0.000001288       3.49       6.51       3.25
SRCPARAM L0001535     0.000001288       3.49       6.51       3.25
SRCPARAM L0001536     0.000001288       3.49       6.51       3.25
SRCPARAM L0001537     0.000001288       3.49       6.51       3.25
SRCPARAM L0001538     0.000001288       3.49       6.51       3.25
SRCPARAM L0001539     0.000001288       3.49       6.51       3.25
SRCPARAM L0001540     0.000001288       3.49       6.51       3.25
SRCPARAM L0001541     0.000001288       3.49       6.51       3.25
SRCPARAM L0001542     0.000001288       3.49       6.51       3.25
SRCPARAM L0001543     0.000001288       3.49       6.51       3.25
SRCPARAM L0001544     0.000001288       3.49       6.51       3.25
SRCPARAM L0001545     0.000001288       3.49       6.51       3.25
SRCPARAM L0001546     0.000001288       3.49       6.51       3.25
SRCPARAM L0001547     0.000001288       3.49       6.51       3.25
SRCPARAM L0001548     0.000001288       3.49       6.51       3.25
SRCPARAM L0001549     0.000001288       3.49       6.51       3.25
SRCPARAM L0001550     0.000001288       3.49       6.51       3.25
SRCPARAM L0001551     0.000001288       3.49       6.51       3.25
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   SRCPARAM L0001553     0.000001288      3.49      6.51      3.25
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   SRCPARAM L0001555     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001556     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001557     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001558     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001559     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001560     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001561     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001562     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001563     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001564     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001565     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001566     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001567     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001568     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001569     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001570     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001571     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001572     0.000001288      3.49      6.51      3.25
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   SRCPARAM L0001576     0.000001288      3.49      6.51      3.25
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   SRCPARAM L0001578     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001579     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001580     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001581     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001582     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001583     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001584     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001585     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001586     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001587     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001588     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001589     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001590     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001591     0.000001288      3.49      6.51      3.25
** ----------------------------------------------------------------------
   SRCPARAM VOL1         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL2         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL3         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL4         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL5         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL6         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL7         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL8         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL9         0.0001152891     5.000     9.560     1.400
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   SRCPARAM VOL10        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL11        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL12        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL13        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL14        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL15        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL16        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL17        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL18        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL19        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL20        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL21        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL22        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL23        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL24        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL25        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL26        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL27        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL28        0.0001152891     5.000     9.560     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 1"
** WeekDays:
   EMISFACT L0001344     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001344     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001344     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001344     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001345     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001345     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001345     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001345     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001346     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001346     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001346     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001346     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001347     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001347     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001347     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001347     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001348     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001348     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001348     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001348     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001349     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001349     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001349     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001349     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001350     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001350     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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EMISFACT L0001350     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001350     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001351     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001351     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001351     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001351     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001352     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001352     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001352     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001352     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001353     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001353     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001353     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001353     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001354     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001354     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001354     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001354     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001355     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001355     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001355     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001355     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001356     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001356     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001356     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001356     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001357     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001357     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001357     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001357     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001358     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001358     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001358     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001358     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001359     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001359     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001359     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001359     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001360     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001360     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001360     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001360     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001361     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001361     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001361     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001361     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001362     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001362     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001362     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001362     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001363     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001363     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001363     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001363     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001364     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001364     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001364     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001365     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001365     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001365     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001366     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001366     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001368     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001368     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001368     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001369     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001369     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001369     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001386     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001387     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001387     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001387     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001410     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001410     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001410     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001410     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001411     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001411     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001411     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001411     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001412     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001412     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001412     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001412     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001413     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001413     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001413     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001413     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001414     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001414     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001414     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001414     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001415     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001415     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001415     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001415     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001416     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001416     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001416     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001416     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001417     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001417     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001417     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001417     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001418     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001418     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001418     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001418     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001419     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001419     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001419     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001419     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001420     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001420     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001420     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001420     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001421     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001421     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001421     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001421     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001422     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001422     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001422     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001422     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001423     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001423     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001423     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001423     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001424     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001424     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001424     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001424     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001425     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001425     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001425     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001425     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001426     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001426     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001426     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001426     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001427     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001427     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001427     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001427     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001428     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001428     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001428     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001428     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001429     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001429     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001429     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001429     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001430     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001431     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001432     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001433     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001434     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001435     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001436     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001437     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001438     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001438     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001439     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001439     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001440     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001440     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001441     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001441     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001442     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001442     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001443     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001443     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001444     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001444     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001445     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001445     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001446     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001446     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001447     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** WeekDays:
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EMISFACT L0001503     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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   EMISFACT L0001591     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001591     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001591     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL7         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL7         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL8         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL9         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL10        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL11        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL12        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL13        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL14        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL15        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL16        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL17        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL17        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL18        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL19        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL20        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL21        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL22        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL23        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL24        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL25        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL26        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT VOL27        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL27        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL28        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "15271-02 CONS HRA.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE PICO_V9_ADJU\PICO_v9.SFC
   PROFFILE PICO_V9_ADJU\PICO_v9.PFL
   SURFDATA 3166 2010
   UAIRDATA 3190 2010
```

```
   SITEDATA 99999 2010
   PROFBASE 58.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "15271-02 CONS HRA.AD\PE00GALL.PLT" 31
   SUMMFILE "15271-02 CONS HRA.sum"
OU FINISHED
**
****************************************
** Project Parameters
****************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
** Lakes Environmental AERMOD MPI
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.2.0
** Lakes Environmental Software Inc.
** Date: 8/24/2023
** File: C:\Users\Michael Tirohn\Desktop\HRAs\15271 Amar Kaplan\15271-02 CONS
HRA\15271-02 CONS HRA.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\15271-02 OPS HRA\15271-02 OPS HRA.isc
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 9818605 Los_Angeles_County
```

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   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "15271-02 CONS HRA.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 = SLINE3
** DESCRSRC Amar W 50%
** PREFIX
** Length of Side = 14.00
** Configuration = Adjacent
** Emission Rate = 0.0001854501
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 3
** 413514.421, 3766573.965, 105.48, 3.49, 6.51
** 412575.065, 3766656.666, 101.17, 3.49, 6.51
** 412309.798, 3766684.753, 100.31, 3.49, 6.51
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   LOCATION L0001344     VOLUME   413507.448 3766574.579 105.35
   LOCATION L0001345     VOLUME   413493.502 3766575.807 105.25
   LOCATION L0001346     VOLUME   413479.556 3766577.035 105.13
   LOCATION L0001347     VOLUME   413465.610 3766578.262 105.00
   LOCATION L0001348     VOLUME   413451.664 3766579.490 104.88
   LOCATION L0001349     VOLUME   413437.718 3766580.718 104.73
   LOCATION L0001350     VOLUME   413423.772 3766581.946 104.56
   LOCATION L0001351     VOLUME   413409.826 3766583.174 104.51
   LOCATION L0001352     VOLUME   413395.880 3766584.401 104.49
   LOCATION L0001353     VOLUME   413381.934 3766585.629 104.56
   LOCATION L0001354     VOLUME   413367.987 3766586.857 104.59
   LOCATION L0001355     VOLUME   413354.041 3766588.085 104.39
   LOCATION L0001356     VOLUME   413340.095 3766589.313 104.25
   LOCATION L0001357     VOLUME   413326.149 3766590.540 104.21
   LOCATION L0001358     VOLUME   413312.203 3766591.768 104.18
   LOCATION L0001359     VOLUME   413298.257 3766592.996 104.16
   LOCATION L0001360     VOLUME   413284.311 3766594.224 104.11
   LOCATION L0001361     VOLUME   413270.365 3766595.452 104.06
   LOCATION L0001362     VOLUME   413256.419 3766596.680 104.04
   LOCATION L0001363     VOLUME   413242.473 3766597.907 104.01
   LOCATION L0001364     VOLUME   413228.527 3766599.135 103.95
   LOCATION L0001365     VOLUME   413214.581 3766600.363 103.90
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LOCATION L0001366     VOLUME   413200.635 3766601.591 103.86
LOCATION L0001367     VOLUME   413186.689 3766602.819 103.81
LOCATION L0001368     VOLUME   413172.743 3766604.046 103.76
LOCATION L0001369     VOLUME   413158.797 3766605.274 103.73
LOCATION L0001370     VOLUME   413144.851 3766606.502 103.70
LOCATION L0001371     VOLUME   413130.904 3766607.730 103.66
LOCATION L0001372     VOLUME   413116.958 3766608.958 103.60
LOCATION L0001373     VOLUME   413103.012 3766610.185 103.54
LOCATION L0001374     VOLUME   413089.066 3766611.413 103.48
LOCATION L0001375     VOLUME   413075.120 3766612.641 103.40
LOCATION L0001376     VOLUME   413061.174 3766613.869 103.33
LOCATION L0001377     VOLUME   413047.228 3766615.097 103.27
LOCATION L0001378     VOLUME   413033.282 3766616.324 103.22
LOCATION L0001379     VOLUME   413019.336 3766617.552 103.22
LOCATION L0001380     VOLUME   413005.390 3766618.780 103.22
LOCATION L0001381     VOLUME   412991.444 3766620.008 103.18
LOCATION L0001382     VOLUME   412977.498 3766621.236 103.14
LOCATION L0001383     VOLUME   412963.552 3766622.464 103.08
LOCATION L0001384     VOLUME   412949.606 3766623.691 103.02
LOCATION L0001385     VOLUME   412935.660 3766624.919 102.95
LOCATION L0001386     VOLUME   412921.714 3766626.147 102.86
LOCATION L0001387     VOLUME   412907.768 3766627.375 102.78
LOCATION L0001388     VOLUME   412893.822 3766628.603 102.73
LOCATION L0001389     VOLUME   412879.875 3766629.830 102.67
LOCATION L0001390     VOLUME   412865.929 3766631.058 102.58
LOCATION L0001391     VOLUME   412851.983 3766632.286 102.52
LOCATION L0001392     VOLUME   412838.037 3766633.514 102.48
LOCATION L0001393     VOLUME   412824.091 3766634.742 102.43
LOCATION L0001394     VOLUME   412810.145 3766635.969 102.37
LOCATION L0001395     VOLUME   412796.199 3766637.197 102.29
LOCATION L0001396     VOLUME   412782.253 3766638.425 102.22
LOCATION L0001397     VOLUME   412768.307 3766639.653 102.17
LOCATION L0001398     VOLUME   412754.361 3766640.881 102.12
LOCATION L0001399     VOLUME   412740.415 3766642.108 102.01
LOCATION L0001400     VOLUME   412726.469 3766643.336 101.91
LOCATION L0001401     VOLUME   412712.523 3766644.564 101.82
LOCATION L0001402     VOLUME   412698.577 3766645.792 101.72
LOCATION L0001403     VOLUME   412684.631 3766647.020 101.57
LOCATION L0001404     VOLUME   412670.685 3766648.247 101.47
LOCATION L0001405     VOLUME   412656.739 3766649.475 101.42
LOCATION L0001406     VOLUME   412642.793 3766650.703 101.36
LOCATION L0001407     VOLUME   412628.846 3766651.931 101.31
LOCATION L0001408     VOLUME   412614.900 3766653.159 101.27
LOCATION L0001409     VOLUME   412600.954 3766654.387 101.23
LOCATION L0001410     VOLUME   412587.008 3766655.614 101.18
LOCATION L0001411     VOLUME   412573.066 3766656.878 101.11
LOCATION L0001412     VOLUME   412559.143 3766658.352 101.02
LOCATION L0001413     VOLUME   412545.221 3766659.826 100.94
LOCATION L0001414     VOLUME   412531.299 3766661.300 100.92
LOCATION L0001415     VOLUME   412517.377 3766662.774 100.90
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   LOCATION L0001416     VOLUME   412503.455 3766664.248 100.87
   LOCATION L0001417     VOLUME   412489.533 3766665.722 100.86
   LOCATION L0001418     VOLUME   412475.610 3766667.196 100.85
   LOCATION L0001419     VOLUME   412461.688 3766668.670 100.85
   LOCATION L0001420     VOLUME   412447.766 3766670.145 100.85
   LOCATION L0001421     VOLUME   412433.844 3766671.619 100.89
   LOCATION L0001422     VOLUME   412419.922 3766673.093 100.91
   LOCATION L0001423     VOLUME   412406.000 3766674.567 100.85
   LOCATION L0001424     VOLUME   412392.077 3766676.041 100.81
   LOCATION L0001425     VOLUME   412378.155 3766677.515 100.78
   LOCATION L0001426     VOLUME   412364.233 3766678.989 100.72
   LOCATION L0001427     VOLUME   412350.311 3766680.463 100.62
   LOCATION L0001428     VOLUME   412336.389 3766681.937 100.52
   LOCATION L0001429     VOLUME   412322.467 3766683.412 100.40
** End of LINE VOLUME Source ID = SLINE3
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Echelon 50%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.0001854501
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 3
** 413713.389, 3766398.220, 107.43, 3.49, 4.00
** 413725.598, 3766540.002, 107.47, 3.49, 4.00
** 413726.188, 3766550.438, 107.45, 3.49, 4.00
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   LOCATION L0001430     VOLUME   413713.757 3766402.499 107.38
   LOCATION L0001431     VOLUME   413714.494 3766411.057 107.35
   LOCATION L0001432     VOLUME   413715.231 3766419.616 107.31
   LOCATION L0001433     VOLUME   413715.968 3766428.174 107.25
   LOCATION L0001434     VOLUME   413716.705 3766436.732 107.19
   LOCATION L0001435     VOLUME   413717.442 3766445.291 107.14
   LOCATION L0001436     VOLUME   413718.179 3766453.849 107.18
   LOCATION L0001437     VOLUME   413718.916 3766462.407 107.24
   LOCATION L0001438     VOLUME   413719.653 3766470.966 107.29
   LOCATION L0001439     VOLUME   413720.390 3766479.524 107.32
   LOCATION L0001440     VOLUME   413721.127 3766488.082 107.27
   LOCATION L0001441     VOLUME   413721.864 3766496.641 107.24
   LOCATION L0001442     VOLUME   413722.601 3766505.199 107.20
   LOCATION L0001443     VOLUME   413723.338 3766513.757 107.23
   LOCATION L0001444     VOLUME   413724.075 3766522.316 107.28
   LOCATION L0001445     VOLUME   413724.812 3766530.874 107.33
   LOCATION L0001446     VOLUME   413725.549 3766539.432 107.38
   LOCATION L0001447     VOLUME   413726.051 3766548.007 107.39
** End of LINE VOLUME Source ID = SLINE4
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC Amar E 50%
** PREFIX
** Length of Side = 14.00
** Configuration = Adjacent
** Emission Rate = 0.0001854501
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 29
** 413726.188, 3766560.678, 107.42, 3.49, 6.51
** 413804.562, 3766560.087, 109.12, 3.49, 6.51
** 413848.475, 3766559.890, 110.07, 3.49, 6.51
** 413885.693, 3766557.527, 110.76, 3.49, 6.51
** 413952.251, 3766550.438, 112.12, 3.49, 6.51
** 414051.302, 3766541.774, 112.99, 3.49, 6.51
** 414170.438, 3766530.549, 113.78, 3.49, 6.51
** 414278.152, 3766521.097, 113.08, 3.49, 6.51
** 414358.298, 3766514.205, 113.49, 3.49, 6.51
** 414438.838, 3766506.722, 114.01, 3.49, 6.51
** 414568.411, 3766494.316, 115.69, 3.49, 6.51
** 414731.854, 3766480.138, 118.11, 3.49, 6.51
** 414797.034, 3766474.034, 118.43, 3.49, 6.51
** 414956.341, 3766459.856, 121.23, 3.49, 6.51
** 415005.571, 3766455.917, 122.08, 3.49, 6.51
** 415066.222, 3766448.237, 122.83, 3.49, 6.51
** 415117.618, 3766436.619, 124.11, 3.49, 6.51
** 415165.075, 3766418.503, 126.26, 3.49, 6.51
** 415231.437, 3766385.814, 129.55, 3.49, 6.51
** 415256.249, 3766364.744, 130.15, 3.49, 6.51
** 415289.922, 3766338.160, 131.49, 3.49, 6.51
** 415340.530, 3766287.551, 134.06, 3.49, 6.51
** 415364.161, 3766255.060, 135.75, 3.49, 6.51
** 415407.680, 3766179.837, 137.69, 3.49, 6.51
** 415424.024, 3766154.040, 137.45, 3.49, 6.51
** 415442.140, 3766123.518, 137.52, 3.49, 6.51
** 415484.281, 3766072.713, 136.83, 3.49, 6.51
** 415510.274, 3766046.719, 136.42, 3.49, 6.51
** 415547.492, 3766014.031, 136.52, 3.49, 6.51
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   LOCATION L0001449     VOLUME   413747.188 3766560.520 107.94
   LOCATION L0001450     VOLUME   413761.187 3766560.414 108.23
   LOCATION L0001451     VOLUME   413775.187 3766560.309 108.44
   LOCATION L0001452     VOLUME   413789.187 3766560.203 108.74
   LOCATION L0001453     VOLUME   413803.186 3766560.098 109.09
   LOCATION L0001454     VOLUME   413817.186 3766560.031 109.46
   LOCATION L0001455     VOLUME   413831.186 3766559.968 109.82
   LOCATION L0001456     VOLUME   413845.186 3766559.905 110.02
   LOCATION L0001457     VOLUME   413859.164 3766559.212 110.23
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LOCATION L0001458     VOLUME   413873.136 3766558.325 110.54
LOCATION L0001459     VOLUME   413887.103 3766557.377 110.86
LOCATION L0001460     VOLUME   413901.024 3766555.894 111.18
LOCATION L0001461     VOLUME   413914.945 3766554.412 111.45
LOCATION L0001462     VOLUME   413928.867 3766552.929 111.66
LOCATION L0001463     VOLUME   413942.788 3766551.446 111.89
LOCATION L0001464     VOLUME   413956.717 3766550.048 112.12
LOCATION L0001465     VOLUME   413970.664 3766548.828 112.32
LOCATION L0001466     VOLUME   413984.611 3766547.608 112.51
LOCATION L0001467     VOLUME   413998.557 3766546.388 112.62
LOCATION L0001468     VOLUME   414012.504 3766545.168 112.73
LOCATION L0001469     VOLUME   414026.451 3766543.948 112.88
LOCATION L0001470     VOLUME   414040.398 3766542.728 113.02
LOCATION L0001471     VOLUME   414054.343 3766541.487 113.13
LOCATION L0001472     VOLUME   414068.281 3766540.174 113.22
LOCATION L0001473     VOLUME   414082.219 3766538.861 113.31
LOCATION L0001474     VOLUME   414096.157 3766537.548 113.41
LOCATION L0001475     VOLUME   414110.096 3766536.235 113.52
LOCATION L0001476     VOLUME   414124.034 3766534.921 113.59
LOCATION L0001477     VOLUME   414137.972 3766533.608 113.65
LOCATION L0001478     VOLUME   414151.910 3766532.295 113.72
LOCATION L0001479     VOLUME   414165.849 3766530.982 113.78
LOCATION L0001480     VOLUME   414179.792 3766529.729 113.75
LOCATION L0001481     VOLUME   414193.739 3766528.505 113.71
LOCATION L0001482     VOLUME   414207.685 3766527.281 113.65
LOCATION L0001483     VOLUME   414221.632 3766526.057 113.54
LOCATION L0001484     VOLUME   414235.578 3766524.833 113.35
LOCATION L0001485     VOLUME   414249.525 3766523.609 113.24
LOCATION L0001486     VOLUME   414263.471 3766522.386 113.21
LOCATION L0001487     VOLUME   414277.417 3766521.162 113.15
LOCATION L0001488     VOLUME   414291.366 3766519.961 113.07
LOCATION L0001489     VOLUME   414305.314 3766518.762 113.15
LOCATION L0001490     VOLUME   414319.263 3766517.562 113.25
LOCATION L0001491     VOLUME   414333.211 3766516.363 113.51
LOCATION L0001492     VOLUME   414347.160 3766515.163 113.67
LOCATION L0001493     VOLUME   414361.107 3766513.944 113.63
LOCATION L0001494     VOLUME   414375.047 3766512.649 113.63
LOCATION L0001495     VOLUME   414388.987 3766511.354 113.70
LOCATION L0001496     VOLUME   414402.926 3766510.059 113.80
LOCATION L0001497     VOLUME   414416.866 3766508.764 113.91
LOCATION L0001498     VOLUME   414430.806 3766507.468 113.97
LOCATION L0001499     VOLUME   414444.745 3766506.157 114.05
LOCATION L0001500     VOLUME   414458.681 3766504.822 114.26
LOCATION L0001501     VOLUME   414472.617 3766503.488 114.44
LOCATION L0001502     VOLUME   414486.554 3766502.154 114.56
LOCATION L0001503     VOLUME   414500.490 3766500.819 114.72
LOCATION L0001504     VOLUME   414514.426 3766499.485 114.91
LOCATION L0001505     VOLUME   414528.362 3766498.151 115.10
LOCATION L0001506     VOLUME   414542.299 3766496.816 115.28
LOCATION L0001507     VOLUME   414556.235 3766495.482 115.44
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LOCATION L0001508     VOLUME   414570.173 3766494.163 115.59
LOCATION L0001509     VOLUME   414584.120 3766492.954 115.79
LOCATION L0001510     VOLUME   414598.068 3766491.744 116.04
LOCATION L0001511     VOLUME   414612.016 3766490.534 116.22
LOCATION L0001512     VOLUME   414625.963 3766489.324 116.40
LOCATION L0001513     VOLUME   414639.911 3766488.114 116.49
LOCATION L0001514     VOLUME   414653.858 3766486.904 116.60
LOCATION L0001515     VOLUME   414667.806 3766485.694 116.75
LOCATION L0001516     VOLUME   414681.754 3766484.484 116.93
LOCATION L0001517     VOLUME   414695.701 3766483.274 117.18
LOCATION L0001518     VOLUME   414709.649 3766482.064 117.56
LOCATION L0001519     VOLUME   414723.596 3766480.854 117.99
LOCATION L0001520     VOLUME   414737.541 3766479.606 118.19
LOCATION L0001521     VOLUME   414751.480 3766478.300 118.29
LOCATION L0001522     VOLUME   414765.419 3766476.995 118.43
LOCATION L0001523     VOLUME   414779.358 3766475.689 118.60
LOCATION L0001524     VOLUME   414793.297 3766474.384 118.74
LOCATION L0001525     VOLUME   414807.240 3766473.125 118.91
LOCATION L0001526     VOLUME   414821.185 3766471.884 119.12
LOCATION L0001527     VOLUME   414835.130 3766470.643 119.32
LOCATION L0001528     VOLUME   414849.075 3766469.402 119.52
LOCATION L0001529     VOLUME   414863.019 3766468.161 119.73
LOCATION L0001530     VOLUME   414876.964 3766466.920 119.96
LOCATION L0001531     VOLUME   414890.909 3766465.679 120.20
LOCATION L0001532     VOLUME   414904.854 3766464.438 120.45
LOCATION L0001533     VOLUME   414918.799 3766463.197 120.68
LOCATION L0001534     VOLUME   414932.744 3766461.956 120.90
LOCATION L0001535     VOLUME   414946.689 3766460.715 121.13
LOCATION L0001536     VOLUME   414960.637 3766459.512 121.36
LOCATION L0001537     VOLUME   414974.592 3766458.395 121.57
LOCATION L0001538     VOLUME   414988.548 3766457.279 121.80
LOCATION L0001539     VOLUME   415002.503 3766456.163 122.08
LOCATION L0001540     VOLUME   415016.407 3766454.545 122.37
LOCATION L0001541     VOLUME   415030.296 3766452.786 122.64
LOCATION L0001542     VOLUME   415044.185 3766451.028 122.84
LOCATION L0001543     VOLUME   415058.074 3766449.269 122.94
LOCATION L0001544     VOLUME   415071.867 3766446.961 123.14
LOCATION L0001545     VOLUME   415085.522 3766443.874 123.31
LOCATION L0001546     VOLUME   415099.177 3766440.788 123.74
LOCATION L0001547     VOLUME   415112.833 3766437.701 124.21
LOCATION L0001548     VOLUME   415126.114 3766433.376 124.67
LOCATION L0001549     VOLUME   415139.194 3766428.383 125.28
LOCATION L0001550     VOLUME   415152.273 3766423.390 125.83
LOCATION L0001551     VOLUME   415165.341 3766418.372 126.39
LOCATION L0001552     VOLUME   415177.900 3766412.185 127.00
LOCATION L0001553     VOLUME   415190.459 3766405.999 127.27
LOCATION L0001554     VOLUME   415203.018 3766399.813 127.69
LOCATION L0001555     VOLUME   415215.577 3766393.626 128.35
LOCATION L0001556     VOLUME   415228.136 3766387.440 129.01
LOCATION L0001557     VOLUME   415239.304 3766379.133 129.29
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   LOCATION L0001558     VOLUME   415249.975 3766370.071 129.57
   LOCATION L0001559     VOLUME   415260.777 3766361.169 130.20
   LOCATION L0001560     VOLUME   415271.766 3766352.494 130.72
   LOCATION L0001561     VOLUME   415282.754 3766343.819 131.17
   LOCATION L0001562     VOLUME   415293.364 3766334.718 131.62
   LOCATION L0001563     VOLUME   415303.263 3766324.818 132.07
   LOCATION L0001564     VOLUME   415313.163 3766314.919 132.54
   LOCATION L0001565     VOLUME   415323.062 3766305.019 133.06
   LOCATION L0001566     VOLUME   415332.962 3766295.120 133.58
   LOCATION L0001567     VOLUME   415342.469 3766284.885 134.22
   LOCATION L0001568     VOLUME   415350.704 3766273.563 134.52
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   LOCATION L0001570     VOLUME   415366.725 3766250.627 135.59
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   LOCATION L0001573     VOLUME   415387.757 3766214.273 136.51
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   LOCATION L0001576     VOLUME   415408.866 3766177.965 137.12
   LOCATION L0001577     VOLUME   415416.358 3766166.139 137.36
   LOCATION L0001578     VOLUME   415423.851 3766154.313 137.60
   LOCATION L0001579     VOLUME   415431.005 3766142.278 137.33
   LOCATION L0001580     VOLUME   415438.151 3766130.239 137.36
   LOCATION L0001581     VOLUME   415446.088 3766118.758 137.49
   LOCATION L0001582     VOLUME   415455.026 3766107.983 137.39
   LOCATION L0001583     VOLUME   415463.964 3766097.207 137.31
   LOCATION L0001584     VOLUME   415472.902 3766086.432 137.21
   LOCATION L0001585     VOLUME   415481.840 3766075.656 137.07
   LOCATION L0001586     VOLUME   415491.477 3766065.517 136.90
   LOCATION L0001587     VOLUME   415501.376 3766055.618 136.65
   LOCATION L0001588     VOLUME   415511.338 3766045.785 136.48
   LOCATION L0001589     VOLUME   415521.857 3766036.546 136.51
   LOCATION L0001590     VOLUME   415532.376 3766027.308 136.49
   LOCATION L0001591     VOLUME   415542.895 3766018.069 136.47
** End of LINE VOLUME Source ID = SLINE5
   LOCATION VOL1         VOLUME     413528.510  3766537.260      106.120
   LOCATION VOL2         VOLUME     413569.628  3766534.004      106.030
   LOCATION VOL3         VOLUME     413610.743  3766528.990      106.200
   LOCATION VOL4         VOLUME     413651.356  3766524.978      106.510
   LOCATION VOL5         VOLUME     413692.219  3766524.477      106.570
   LOCATION VOL6         VOLUME     413524.500  3766499.957      106.050
   LOCATION VOL7         VOLUME     413565.618  3766496.700      106.170
   LOCATION VOL8         VOLUME     413606.732  3766491.686      106.330
   LOCATION VOL9         VOLUME     413647.345  3766487.675      106.530
   LOCATION VOL10        VOLUME     413688.209  3766487.174      106.770
   LOCATION VOL11        VOLUME     413521.742  3766462.102      106.070
   LOCATION VOL12        VOLUME     413562.860  3766458.845      106.060
   LOCATION VOL13        VOLUME     413603.975  3766453.831      106.320
   LOCATION VOL14        VOLUME     413644.587  3766449.820      106.400
   LOCATION VOL15        VOLUME     413685.451  3766449.319      106.690
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   LOCATION VOL16        VOLUME     413518.734  3766423.745      105.440
   LOCATION VOL17        VOLUME     413559.852  3766420.489      105.670
   LOCATION VOL18        VOLUME     413600.966  3766415.475      105.840
   LOCATION VOL19        VOLUME     413641.579  3766411.463      106.010
   LOCATION VOL20        VOLUME     413682.443  3766410.962      106.670
   LOCATION VOL21        VOLUME     413513.720  3766385.890      105.900
   LOCATION VOL22        VOLUME     413554.838  3766382.633      105.860
   LOCATION VOL23        VOLUME     413595.952  3766377.619      106.430
   LOCATION VOL24        VOLUME     413636.565  3766373.608      106.400
   LOCATION VOL25        VOLUME     413511.968  3766372.053      105.670
   LOCATION VOL26        VOLUME     413552.330  3766368.293      105.830
   LOCATION VOL27        VOLUME     413593.445  3766366.538      106.400
   LOCATION VOL28        VOLUME     413635.060  3766360.772      106.380
** Source Parameters **
** LINE VOLUME Source ID = SLINE3
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   SRCPARAM L0001345     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001346     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001347     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001348     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001349     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001350     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001351     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001352     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001353     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001354     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001355     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001356     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001357     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001358     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001359     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001360     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001361     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001362     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001363     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001364     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001365     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001366     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001367     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001368     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001369     0.000002156      3.49      6.51      3.25
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   SRCPARAM L0001371     0.000002156      3.49      6.51      3.25
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   SRCPARAM L0001375     0.000002156      3.49      6.51      3.25
   SRCPARAM L0001376     0.000002156      3.49      6.51      3.25
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   SRCPARAM L0001378     0.000002156      3.49      6.51      3.25
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   SRCPARAM L0001429     0.000002156      3.49      6.51      3.25
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   SRCPARAM L0001431     0.0000103028      3.49      4.00      3.25
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   SRCPARAM L0001433     0.0000103028      3.49      4.00      3.25
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   SRCPARAM L0001435     0.0000103028      3.49      4.00      3.25
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   SRCPARAM L0001437     0.0000103028      3.49      4.00      3.25
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   SRCPARAM L0001447     0.0000103028      3.49      4.00      3.25
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** LINE VOLUME Source ID = SLINE5
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   SRCPARAM L0001474     0.000001288      3.49      6.51      3.25
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SRCPARAM L0001543     0.000001288      3.49      6.51      3.25
SRCPARAM L0001544     0.000001288      3.49      6.51      3.25
SRCPARAM L0001545     0.000001288      3.49      6.51      3.25
SRCPARAM L0001546     0.000001288      3.49      6.51      3.25
SRCPARAM L0001547     0.000001288      3.49      6.51      3.25
SRCPARAM L0001548     0.000001288      3.49      6.51      3.25
SRCPARAM L0001549     0.000001288      3.49      6.51      3.25
SRCPARAM L0001550     0.000001288      3.49      6.51      3.25
SRCPARAM L0001551     0.000001288      3.49      6.51      3.25
SRCPARAM L0001552     0.000001288      3.49      6.51      3.25
SRCPARAM L0001553     0.000001288      3.49      6.51      3.25
SRCPARAM L0001554     0.000001288      3.49      6.51      3.25
SRCPARAM L0001555     0.000001288      3.49      6.51      3.25
SRCPARAM L0001556     0.000001288      3.49      6.51      3.25
SRCPARAM L0001557     0.000001288      3.49      6.51      3.25
SRCPARAM L0001558     0.000001288      3.49      6.51      3.25
SRCPARAM L0001559     0.000001288      3.49      6.51      3.25
SRCPARAM L0001560     0.000001288      3.49      6.51      3.25
SRCPARAM L0001561     0.000001288      3.49      6.51      3.25
SRCPARAM L0001562     0.000001288      3.49      6.51      3.25
SRCPARAM L0001563     0.000001288      3.49      6.51      3.25
SRCPARAM L0001564     0.000001288      3.49      6.51      3.25
SRCPARAM L0001565     0.000001288      3.49      6.51      3.25
SRCPARAM L0001566     0.000001288      3.49      6.51      3.25
SRCPARAM L0001567     0.000001288      3.49      6.51      3.25
SRCPARAM L0001568     0.000001288      3.49      6.51      3.25
SRCPARAM L0001569     0.000001288      3.49      6.51      3.25
SRCPARAM L0001570     0.000001288      3.49      6.51      3.25
SRCPARAM L0001571     0.000001288      3.49      6.51      3.25
SRCPARAM L0001572     0.000001288      3.49      6.51      3.25
SRCPARAM L0001573     0.000001288      3.49      6.51      3.25
SRCPARAM L0001574     0.000001288      3.49      6.51      3.25
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   SRCPARAM L0001575     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001576     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001577     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001578     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001579     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001580     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001581     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001582     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001583     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001584     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001585     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001586     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001587     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001588     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001589     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001590     0.000001288      3.49      6.51      3.25
   SRCPARAM L0001591     0.000001288      3.49      6.51      3.25
** --------------------------------------------------------------------
   SRCPARAM VOL1         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL2         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL3         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL4         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL5         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL6         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL7         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL8         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL9         0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL10        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL11        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL12        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL13        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL14        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL15        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL16        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL17        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL18        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL19        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL20        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL21        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL22        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL23        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL24        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL25        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL26        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL27        0.0001152891     5.000     9.560     1.400
   SRCPARAM VOL28        0.0001152891     5.000     9.560     1.400
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 1"
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** WeekDays:
   EMISFACT L0001344     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001344     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001344     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001344     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001345     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001345     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001345     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001345     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001346     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001346     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001346     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001346     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001347     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001347     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001347     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001347     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001348     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001348     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001348     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001348     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001349     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001349     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001349     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001349     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001350     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001350     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001350     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001350     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001351     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001351     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001351     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001351     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001352     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001352     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001352     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001352     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001353     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001353     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001353     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001353     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001354     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001354     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001354     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001354     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001355     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001355     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001355     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001355     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001356     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001356     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001356     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001356     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001357     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001357     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001357     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001357     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001358     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001358     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001358     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001358     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001359     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001359     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001359     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001359     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001360     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001360     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001360     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001360     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001361     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001361     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001361     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001361     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001362     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001362     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001362     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001362     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001363     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001363     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001363     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001363     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001364     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001364     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001364     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001365     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001365     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001365     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001366     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001366     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001366     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001366     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001367     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001367     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001367     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001368     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001368     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001368     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001369     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001370     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001370     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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EMISFACT L0001387     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001389     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001390     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001390     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001391     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001393     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001414     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001414     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001415     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001415     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001415     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001415     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001416     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001416     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001416     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001416     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001417     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001417     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001417     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001417     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001418     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001418     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001418     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001418     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001419     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001419     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001419     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001419     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001420     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001420     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001420     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001420     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001421     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001421     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001421     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001421     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001422     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001422     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001422     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001422     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001423     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001423     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001423     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001423     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001424     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001424     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001424     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001425     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001425     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001425     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001425     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001426     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001426     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001426     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001426     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001427     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001427     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001427     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001427     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001428     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001428     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001428     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001428     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001429     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001429     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001429     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001429     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001430     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001431     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001432     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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EMISFACT L0001433     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001434     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001434     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001435     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001436     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001437     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001438     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001438     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001439     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001439     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001440     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001440     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001441     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001442     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001442     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001443     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001443     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001444     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001444     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001445     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001445     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001446     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001446     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001447     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001443     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001444     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001447     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001430     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001431     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001432     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001433     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001434     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001435     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001436     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001437     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001438     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001439     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001440     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001441     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001442     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001445     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001446     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** WeekDays:
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EMISFACT L0001508     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001509     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001545     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001545     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001558     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001576     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001577     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001577     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001577     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001578     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001579     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001581     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001582     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001582     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001583     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001583     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001583     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001583     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001584     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001584     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001584     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001584     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001585     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001585     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001585     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001585     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001586     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001586     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001586     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001586     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001587     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001587     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001587     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001587     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001588     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001588     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001588     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001588     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001589     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001589     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001589     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001589     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001590     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001590     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001590     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001590     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001591     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001591     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001591     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001591     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL7         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL8         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** Sunday:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL9         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL10        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL11        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** WeekDays:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL12        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL13        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL14        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL15        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** Saturday:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL16        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL17        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL17        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL18        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** Sunday:
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL18        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL19        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL19        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL20        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL20        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL21        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL21        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** WeekDays:
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL22        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL22        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL23        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL23        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL24        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL24        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL25        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** Saturday:
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL25        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL26        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL26        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL27        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL27        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL28        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
```

```
** Sunday:
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL28        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "15271-02 CONS HRA.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE PICO_V9_ADJU\PICO_v9.SFC
   PROFFILE PICO_V9_ADJU\PICO_v9.PFL
   SURFDATA 3166 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 58.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "15271-02 CONS HRA.AD\PE00GALL.PLT" 31
   SUMMFILE "15271-02 CONS HRA.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)
```

```
   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
 ME W186    4102       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187    4102       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for   276 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   9818605.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: DPM
```

```
 **Model Calculates PERIOD Averages Only

 **This Run Includes:    276 Source(s);       1 Source Group(s); and      75
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    276 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of PERIOD 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 =      3.8 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   15271-02 CONS HRA.err

 **File for Summary of Results:   15271-02 CONS HRA.sum
```

```
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                  *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0001344         0   0.21560E-05  413507.4 3766574.6   105.3     3.49     6.51
3.25     YES   HRDOW
 L0001345         0   0.21560E-05  413493.5 3766575.8   105.2     3.49     6.51
3.25     YES   HRDOW
 L0001346         0   0.21560E-05  413479.6 3766577.0   105.1     3.49     6.51
3.25     YES   HRDOW
 L0001347         0   0.21560E-05  413465.6 3766578.3   105.0     3.49     6.51
3.25     YES   HRDOW
 L0001348         0   0.21560E-05  413451.7 3766579.5   104.9     3.49     6.51
3.25     YES   HRDOW
 L0001349         0   0.21560E-05  413437.7 3766580.7   104.7     3.49     6.51
3.25     YES   HRDOW
 L0001350         0   0.21560E-05  413423.8 3766581.9   104.6     3.49     6.51
3.25     YES   HRDOW
 L0001351         0   0.21560E-05  413409.8 3766583.2   104.5     3.49     6.51
3.25     YES   HRDOW
 L0001352         0   0.21560E-05  413395.9 3766584.4   104.5     3.49     6.51
3.25     YES   HRDOW
 L0001353         0   0.21560E-05  413381.9 3766585.6   104.6     3.49     6.51
3.25     YES   HRDOW
 L0001354         0   0.21560E-05  413368.0 3766586.9   104.6     3.49     6.51
3.25     YES   HRDOW
 L0001355         0   0.21560E-05  413354.0 3766588.1   104.4     3.49     6.51
3.25     YES   HRDOW
 L0001356         0   0.21560E-05  413340.1 3766589.3   104.2     3.49     6.51
3.25     YES   HRDOW
 L0001357         0   0.21560E-05  413326.1 3766590.5   104.2     3.49     6.51
3.25     YES   HRDOW
 L0001358         0   0.21560E-05  413312.2 3766591.8   104.2     3.49     6.51
3.25     YES   HRDOW
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 L0001359         0   0.21560E-05  413298.3 3766593.0   104.2      3.49      6.51
3.25     YES   HRDOW
 L0001360         0   0.21560E-05  413284.3 3766594.2   104.1      3.49      6.51
3.25     YES   HRDOW
 L0001361         0   0.21560E-05  413270.4 3766595.5   104.1      3.49      6.51
3.25     YES   HRDOW
 L0001362         0   0.21560E-05  413256.4 3766596.7   104.0      3.49      6.51
3.25     YES   HRDOW
 L0001363         0   0.21560E-05  413242.5 3766597.9   104.0      3.49      6.51
3.25     YES   HRDOW
 L0001364         0   0.21560E-05  413228.5 3766599.1   104.0      3.49      6.51
3.25     YES   HRDOW
 L0001365         0   0.21560E-05  413214.6 3766600.4   103.9      3.49      6.51
3.25     YES   HRDOW
 L0001366         0   0.21560E-05  413200.6 3766601.6   103.9      3.49      6.51
3.25     YES   HRDOW
 L0001367         0   0.21560E-05  413186.7 3766602.8   103.8      3.49      6.51
3.25     YES   HRDOW
 L0001368         0   0.21560E-05  413172.7 3766604.0   103.8      3.49      6.51
3.25     YES   HRDOW
 L0001369         0   0.21560E-05  413158.8 3766605.3   103.7      3.49      6.51
3.25     YES   HRDOW
 L0001370         0   0.21560E-05  413144.9 3766606.5   103.7      3.49      6.51
3.25     YES   HRDOW
 L0001371         0   0.21560E-05  413130.9 3766607.7   103.7      3.49      6.51
3.25     YES   HRDOW
 L0001372         0   0.21560E-05  413117.0 3766609.0   103.6      3.49      6.51
3.25     YES   HRDOW
 L0001373         0   0.21560E-05  413103.0 3766610.2   103.5      3.49      6.51
3.25     YES   HRDOW
 L0001374         0   0.21560E-05  413089.1 3766611.4   103.5      3.49      6.51
3.25     YES   HRDOW
 L0001375         0   0.21560E-05  413075.1 3766612.6   103.4      3.49      6.51
3.25     YES   HRDOW
 L0001376         0   0.21560E-05  413061.2 3766613.9   103.3      3.49      6.51
3.25     YES   HRDOW
 L0001377         0   0.21560E-05  413047.2 3766615.1   103.3      3.49      6.51
3.25     YES   HRDOW
 L0001378         0   0.21560E-05  413033.3 3766616.3   103.2      3.49      6.51
3.25     YES   HRDOW
 L0001379         0   0.21560E-05  413019.3 3766617.6   103.2      3.49      6.51
3.25     YES   HRDOW
 L0001380         0   0.21560E-05  413005.4 3766618.8   103.2      3.49      6.51
3.25     YES   HRDOW
 L0001381         0   0.21560E-05  412991.4 3766620.0   103.2      3.49      6.51
3.25     YES   HRDOW
 L0001382         0   0.21560E-05  412977.5 3766621.2   103.1      3.49      6.51
3.25     YES   HRDOW
 L0001383         0   0.21560E-05  412963.6 3766622.5   103.1      3.49      6.51
3.25     YES   HRDOW
```

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↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                  *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0001384         0   0.21560E-05  412949.6 3766623.7   103.0     3.49     6.51
3.25     YES   HRDOW
 L0001385         0   0.21560E-05  412935.7 3766624.9   103.0     3.49     6.51
3.25     YES   HRDOW
 L0001386         0   0.21560E-05  412921.7 3766626.1   102.9     3.49     6.51
3.25     YES   HRDOW
 L0001387         0   0.21560E-05  412907.8 3766627.4   102.8     3.49     6.51
3.25     YES   HRDOW
 L0001388         0   0.21560E-05  412893.8 3766628.6   102.7     3.49     6.51
3.25     YES   HRDOW
 L0001389         0   0.21560E-05  412879.9 3766629.8   102.7     3.49     6.51
3.25     YES   HRDOW
 L0001390         0   0.21560E-05  412865.9 3766631.1   102.6     3.49     6.51
3.25     YES   HRDOW
 L0001391         0   0.21560E-05  412852.0 3766632.3   102.5     3.49     6.51
3.25     YES   HRDOW
 L0001392         0   0.21560E-05  412838.0 3766633.5   102.5     3.49     6.51
3.25     YES   HRDOW
 L0001393         0   0.21560E-05  412824.1 3766634.7   102.4     3.49     6.51
3.25     YES   HRDOW
 L0001394         0   0.21560E-05  412810.1 3766636.0   102.4     3.49     6.51
3.25     YES   HRDOW
 L0001395         0   0.21560E-05  412796.2 3766637.2   102.3     3.49     6.51
3.25     YES   HRDOW
 L0001396         0   0.21560E-05  412782.3 3766638.4   102.2     3.49     6.51
3.25     YES   HRDOW
 L0001397         0   0.21560E-05  412768.3 3766639.7   102.2     3.49     6.51
3.25     YES   HRDOW
 L0001398         0   0.21560E-05  412754.4 3766640.9   102.1     3.49     6.51
3.25     YES   HRDOW
```

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 L0001399          0   0.21560E-05  412740.4 3766642.1   102.0      3.49      6.51
3.25     YES   HRDOW
 L0001400          0   0.21560E-05  412726.5 3766643.3   101.9      3.49      6.51
3.25     YES   HRDOW
 L0001401          0   0.21560E-05  412712.5 3766644.6   101.8      3.49      6.51
3.25     YES   HRDOW
 L0001402          0   0.21560E-05  412698.6 3766645.8   101.7      3.49      6.51
3.25     YES   HRDOW
 L0001403          0   0.21560E-05  412684.6 3766647.0   101.6      3.49      6.51
3.25     YES   HRDOW
 L0001404          0   0.21560E-05  412670.7 3766648.2   101.5      3.49      6.51
3.25     YES   HRDOW
 L0001405          0   0.21560E-05  412656.7 3766649.5   101.4      3.49      6.51
3.25     YES   HRDOW
 L0001406          0   0.21560E-05  412642.8 3766650.7   101.4      3.49      6.51
3.25     YES   HRDOW
 L0001407          0   0.21560E-05  412628.8 3766651.9   101.3      3.49      6.51
3.25     YES   HRDOW
 L0001408          0   0.21560E-05  412614.9 3766653.2   101.3      3.49      6.51
3.25     YES   HRDOW
 L0001409          0   0.21560E-05  412601.0 3766654.4   101.2      3.49      6.51
3.25     YES   HRDOW
 L0001410          0   0.21560E-05  412587.0 3766655.6   101.2      3.49      6.51
3.25     YES   HRDOW
 L0001411          0   0.21560E-05  412573.1 3766656.9   101.1      3.49      6.51
3.25     YES   HRDOW
 L0001412          0   0.21560E-05  412559.1 3766658.4   101.0      3.49      6.51
3.25     YES   HRDOW
 L0001413          0   0.21560E-05  412545.2 3766659.8   100.9      3.49      6.51
3.25     YES   HRDOW
 L0001414          0   0.21560E-05  412531.3 3766661.3   100.9      3.49      6.51
3.25     YES   HRDOW
 L0001415          0   0.21560E-05  412517.4 3766662.8   100.9      3.49      6.51
3.25     YES   HRDOW
 L0001416          0   0.21560E-05  412503.5 3766664.2   100.9      3.49      6.51
3.25     YES   HRDOW
 L0001417          0   0.21560E-05  412489.5 3766665.7   100.9      3.49      6.51
3.25     YES   HRDOW
 L0001418          0   0.21560E-05  412475.6 3766667.2   100.8      3.49      6.51
3.25     YES   HRDOW
 L0001419          0   0.21560E-05  412461.7 3766668.7   100.8      3.49      6.51
3.25     YES   HRDOW
 L0001420          0   0.21560E-05  412447.8 3766670.1   100.8      3.49      6.51
3.25     YES   HRDOW
 L0001421          0   0.21560E-05  412433.8 3766671.6   100.9      3.49      6.51
3.25     YES   HRDOW
 L0001422          0   0.21560E-05  412419.9 3766673.1   100.9      3.49      6.51
3.25     YES   HRDOW
 L0001423          0   0.21560E-05  412406.0 3766674.6   100.8      3.49      6.51
3.25     YES   HRDOW
```

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↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                  *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0001424         0   0.21560E-05  412392.1 3766676.0   100.8     3.49     6.51
3.25     YES   HRDOW
 L0001425         0   0.21560E-05  412378.2 3766677.5   100.8     3.49     6.51
3.25     YES   HRDOW
 L0001426         0   0.21560E-05  412364.2 3766679.0   100.7     3.49     6.51
3.25     YES   HRDOW
 L0001427         0   0.21560E-05  412350.3 3766680.5   100.6     3.49     6.51
3.25     YES   HRDOW
 L0001428         0   0.21560E-05  412336.4 3766681.9   100.5     3.49     6.51
3.25     YES   HRDOW
 L0001429         0   0.21560E-05  412322.5 3766683.4   100.4     3.49     6.51
3.25     YES   HRDOW
 L0001430         0   0.10303E-04  413713.8 3766402.5   107.4     3.49     4.00
3.25     YES   HRDOW
 L0001431         0   0.10303E-04  413714.5 3766411.1   107.3     3.49     4.00
3.25     YES   HRDOW
 L0001432         0   0.10303E-04  413715.2 3766419.6   107.3     3.49     4.00
3.25     YES   HRDOW
 L0001433         0   0.10303E-04  413716.0 3766428.2   107.2     3.49     4.00
3.25     YES   HRDOW
 L0001434         0   0.10303E-04  413716.7 3766436.7   107.2     3.49     4.00
3.25     YES   HRDOW
 L0001435         0   0.10303E-04  413717.4 3766445.3   107.1     3.49     4.00
3.25     YES   HRDOW
 L0001436         0   0.10303E-04  413718.2 3766453.8   107.2     3.49     4.00
3.25     YES   HRDOW
 L0001437         0   0.10303E-04  413718.9 3766462.4   107.2     3.49     4.00
3.25     YES   HRDOW
 L0001438         0   0.10303E-04  413719.7 3766471.0   107.3     3.49     4.00
3.25     YES   HRDOW
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 L0001439         0   0.10303E-04  413720.4 3766479.5   107.3      3.49      4.00
3.25     YES   HRDOW
 L0001440         0   0.10303E-04  413721.1 3766488.1   107.3      3.49      4.00
3.25     YES   HRDOW
 L0001441         0   0.10303E-04  413721.9 3766496.6   107.2      3.49      4.00
3.25     YES   HRDOW
 L0001442         0   0.10303E-04  413722.6 3766505.2   107.2      3.49      4.00
3.25     YES   HRDOW
 L0001443         0   0.10303E-04  413723.3 3766513.8   107.2      3.49      4.00
3.25     YES   HRDOW
 L0001444         0   0.10303E-04  413724.1 3766522.3   107.3      3.49      4.00
3.25     YES   HRDOW
 L0001445         0   0.10303E-04  413724.8 3766530.9   107.3      3.49      4.00
3.25     YES   HRDOW
 L0001446         0   0.10303E-04  413725.5 3766539.4   107.4      3.49      4.00
3.25     YES   HRDOW
 L0001447         0   0.10303E-04  413726.1 3766548.0   107.4      3.49      4.00
3.25     YES   HRDOW
 L0001448         0   0.12880E-05  413733.2 3766560.6   107.6      3.49      6.51
3.25     YES   HRDOW
 L0001449         0   0.12880E-05  413747.2 3766560.5   107.9      3.49      6.51
3.25     YES   HRDOW
 L0001450         0   0.12880E-05  413761.2 3766560.4   108.2      3.49      6.51
3.25     YES   HRDOW
 L0001451         0   0.12880E-05  413775.2 3766560.3   108.4      3.49      6.51
3.25     YES   HRDOW
 L0001452         0   0.12880E-05  413789.2 3766560.2   108.7      3.49      6.51
3.25     YES   HRDOW
 L0001453         0   0.12880E-05  413803.2 3766560.1   109.1      3.49      6.51
3.25     YES   HRDOW
 L0001454         0   0.12880E-05  413817.2 3766560.0   109.5      3.49      6.51
3.25     YES   HRDOW
 L0001455         0   0.12880E-05  413831.2 3766560.0   109.8      3.49      6.51
3.25     YES   HRDOW
 L0001456         0   0.12880E-05  413845.2 3766559.9   110.0      3.49      6.51
3.25     YES   HRDOW
 L0001457         0   0.12880E-05  413859.2 3766559.2   110.2      3.49      6.51
3.25     YES   HRDOW
 L0001458         0   0.12880E-05  413873.1 3766558.3   110.5      3.49      6.51
3.25     YES   HRDOW
 L0001459         0   0.12880E-05  413887.1 3766557.4   110.9      3.49      6.51
3.25     YES   HRDOW
 L0001460         0   0.12880E-05  413901.0 3766555.9   111.2      3.49      6.51
3.25     YES   HRDOW
 L0001461         0   0.12880E-05  413914.9 3766554.4   111.5      3.49      6.51
3.25     YES   HRDOW
 L0001462         0   0.12880E-05  413928.9 3766552.9   111.7      3.49      6.51
3.25     YES   HRDOW
 L0001463         0   0.12880E-05  413942.8 3766551.4   111.9      3.49      6.51
3.25     YES   HRDOW
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↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                  *** 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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 L0001464         0   0.12880E-05  413956.7 3766550.0   112.1     3.49     6.51
3.25     YES   HRDOW
 L0001465         0   0.12880E-05  413970.7 3766548.8   112.3     3.49     6.51
3.25     YES   HRDOW
 L0001466         0   0.12880E-05  413984.6 3766547.6   112.5     3.49     6.51
3.25     YES   HRDOW
 L0001467         0   0.12880E-05  413998.6 3766546.4   112.6     3.49     6.51
3.25     YES   HRDOW
 L0001468         0   0.12880E-05  414012.5 3766545.2   112.7     3.49     6.51
3.25     YES   HRDOW
 L0001469         0   0.12880E-05  414026.5 3766543.9   112.9     3.49     6.51
3.25     YES   HRDOW
 L0001470         0   0.12880E-05  414040.4 3766542.7   113.0     3.49     6.51
3.25     YES   HRDOW
 L0001471         0   0.12880E-05  414054.3 3766541.5   113.1     3.49     6.51
3.25     YES   HRDOW
 L0001472         0   0.12880E-05  414068.3 3766540.2   113.2     3.49     6.51
3.25     YES   HRDOW
 L0001473         0   0.12880E-05  414082.2 3766538.9   113.3     3.49     6.51
3.25     YES   HRDOW
 L0001474         0   0.12880E-05  414096.2 3766537.5   113.4     3.49     6.51
3.25     YES   HRDOW
 L0001475         0   0.12880E-05  414110.1 3766536.2   113.5     3.49     6.51
3.25     YES   HRDOW
 L0001476         0   0.12880E-05  414124.0 3766534.9   113.6     3.49     6.51
3.25     YES   HRDOW
 L0001477         0   0.12880E-05  414138.0 3766533.6   113.6     3.49     6.51
3.25     YES   HRDOW
 L0001478         0   0.12880E-05  414151.9 3766532.3   113.7     3.49     6.51
3.25     YES   HRDOW
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 L0001479         0   0.12880E-05  414165.8 3766531.0   113.8      3.49      6.51
3.25     YES   HRDOW
 L0001480         0   0.12880E-05  414179.8 3766529.7   113.8      3.49      6.51
3.25     YES   HRDOW
 L0001481         0   0.12880E-05  414193.7 3766528.5   113.7      3.49      6.51
3.25     YES   HRDOW
 L0001482         0   0.12880E-05  414207.7 3766527.3   113.6      3.49      6.51
3.25     YES   HRDOW
 L0001483         0   0.12880E-05  414221.6 3766526.1   113.5      3.49      6.51
3.25     YES   HRDOW
 L0001484         0   0.12880E-05  414235.6 3766524.8   113.3      3.49      6.51
3.25     YES   HRDOW
 L0001485         0   0.12880E-05  414249.5 3766523.6   113.2      3.49      6.51
3.25     YES   HRDOW
 L0001486         0   0.12880E-05  414263.5 3766522.4   113.2      3.49      6.51
3.25     YES   HRDOW
 L0001487         0   0.12880E-05  414277.4 3766521.2   113.1      3.49      6.51
3.25     YES   HRDOW
 L0001488         0   0.12880E-05  414291.4 3766520.0   113.1      3.49      6.51
3.25     YES   HRDOW
 L0001489         0   0.12880E-05  414305.3 3766518.8   113.1      3.49      6.51
3.25     YES   HRDOW
 L0001490         0   0.12880E-05  414319.3 3766517.6   113.2      3.49      6.51
3.25     YES   HRDOW
 L0001491         0   0.12880E-05  414333.2 3766516.4   113.5      3.49      6.51
3.25     YES   HRDOW
 L0001492         0   0.12880E-05  414347.2 3766515.2   113.7      3.49      6.51
3.25     YES   HRDOW
 L0001493         0   0.12880E-05  414361.1 3766513.9   113.6      3.49      6.51
3.25     YES   HRDOW
 L0001494         0   0.12880E-05  414375.0 3766512.6   113.6      3.49      6.51
3.25     YES   HRDOW
 L0001495         0   0.12880E-05  414389.0 3766511.4   113.7      3.49      6.51
3.25     YES   HRDOW
 L0001496         0   0.12880E-05  414402.9 3766510.1   113.8      3.49      6.51
3.25     YES   HRDOW
 L0001497         0   0.12880E-05  414416.9 3766508.8   113.9      3.49      6.51
3.25     YES   HRDOW
 L0001498         0   0.12880E-05  414430.8 3766507.5   114.0      3.49      6.51
3.25     YES   HRDOW
 L0001499         0   0.12880E-05  414444.7 3766506.2   114.0      3.49      6.51
3.25     YES   HRDOW
 L0001500         0   0.12880E-05  414458.7 3766504.8   114.3      3.49      6.51
3.25     YES   HRDOW
 L0001501         0   0.12880E-05  414472.6 3766503.5   114.4      3.49      6.51
3.25     YES   HRDOW
 L0001502         0   0.12880E-05  414486.6 3766502.2   114.6      3.49      6.51
3.25     YES   HRDOW
 L0001503         0   0.12880E-05  414500.5 3766500.8   114.7      3.49      6.51
3.25     YES   HRDOW
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↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                  *** 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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- - - - - - - - - - - - - - - - - - - -

 L0001504         0   0.12880E-05  414514.4 3766499.5   114.9     3.49     6.51
3.25     YES   HRDOW
 L0001505         0   0.12880E-05  414528.4 3766498.2   115.1     3.49     6.51
3.25     YES   HRDOW
 L0001506         0   0.12880E-05  414542.3 3766496.8   115.3     3.49     6.51
3.25     YES   HRDOW
 L0001507         0   0.12880E-05  414556.2 3766495.5   115.4     3.49     6.51
3.25     YES   HRDOW
 L0001508         0   0.12880E-05  414570.2 3766494.2   115.6     3.49     6.51
3.25     YES   HRDOW
 L0001509         0   0.12880E-05  414584.1 3766493.0   115.8     3.49     6.51
3.25     YES   HRDOW
 L0001510         0   0.12880E-05  414598.1 3766491.7   116.0     3.49     6.51
3.25     YES   HRDOW
 L0001511         0   0.12880E-05  414612.0 3766490.5   116.2     3.49     6.51
3.25     YES   HRDOW
 L0001512         0   0.12880E-05  414626.0 3766489.3   116.4     3.49     6.51
3.25     YES   HRDOW
 L0001513         0   0.12880E-05  414639.9 3766488.1   116.5     3.49     6.51
3.25     YES   HRDOW
 L0001514         0   0.12880E-05  414653.9 3766486.9   116.6     3.49     6.51
3.25     YES   HRDOW
 L0001515         0   0.12880E-05  414667.8 3766485.7   116.8     3.49     6.51
3.25     YES   HRDOW
 L0001516         0   0.12880E-05  414681.8 3766484.5   116.9     3.49     6.51
3.25     YES   HRDOW
 L0001517         0   0.12880E-05  414695.7 3766483.3   117.2     3.49     6.51
3.25     YES   HRDOW
 L0001518         0   0.12880E-05  414709.6 3766482.1   117.6     3.49     6.51
3.25     YES   HRDOW
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 L0001519         0   0.12880E-05  414723.6 3766480.9   118.0     3.49     6.51
3.25     YES   HRDOW
 L0001520         0   0.12880E-05  414737.5 3766479.6   118.2     3.49     6.51
3.25     YES   HRDOW
 L0001521         0   0.12880E-05  414751.5 3766478.3   118.3     3.49     6.51
3.25     YES   HRDOW
 L0001522         0   0.12880E-05  414765.4 3766477.0   118.4     3.49     6.51
3.25     YES   HRDOW
 L0001523         0   0.12880E-05  414779.4 3766475.7   118.6     3.49     6.51
3.25     YES   HRDOW
 L0001524         0   0.12880E-05  414793.3 3766474.4   118.7     3.49     6.51
3.25     YES   HRDOW
 L0001525         0   0.12880E-05  414807.2 3766473.1   118.9     3.49     6.51
3.25     YES   HRDOW
 L0001526         0   0.12880E-05  414821.2 3766471.9   119.1     3.49     6.51
3.25     YES   HRDOW
 L0001527         0   0.12880E-05  414835.1 3766470.6   119.3     3.49     6.51
3.25     YES   HRDOW
 L0001528         0   0.12880E-05  414849.1 3766469.4   119.5     3.49     6.51
3.25     YES   HRDOW
 L0001529         0   0.12880E-05  414863.0 3766468.2   119.7     3.49     6.51
3.25     YES   HRDOW
 L0001530         0   0.12880E-05  414877.0 3766466.9   120.0     3.49     6.51
3.25     YES   HRDOW
 L0001531         0   0.12880E-05  414890.9 3766465.7   120.2     3.49     6.51
3.25     YES   HRDOW
 L0001532         0   0.12880E-05  414904.9 3766464.4   120.5     3.49     6.51
3.25     YES   HRDOW
 L0001533         0   0.12880E-05  414918.8 3766463.2   120.7     3.49     6.51
3.25     YES   HRDOW
 L0001534         0   0.12880E-05  414932.7 3766462.0   120.9     3.49     6.51
3.25     YES   HRDOW
 L0001535         0   0.12880E-05  414946.7 3766460.7   121.1     3.49     6.51
3.25     YES   HRDOW
 L0001536         0   0.12880E-05  414960.6 3766459.5   121.4     3.49     6.51
3.25     YES   HRDOW
 L0001537         0   0.12880E-05  414974.6 3766458.4   121.6     3.49     6.51
3.25     YES   HRDOW
 L0001538         0   0.12880E-05  414988.5 3766457.3   121.8     3.49     6.51
3.25     YES   HRDOW
 L0001539         0   0.12880E-05  415002.5 3766456.2   122.1     3.49     6.51
3.25     YES   HRDOW
 L0001540         0   0.12880E-05  415016.4 3766454.5   122.4     3.49     6.51
3.25     YES   HRDOW
 L0001541         0   0.12880E-05  415030.3 3766452.8   122.6     3.49     6.51
3.25     YES   HRDOW
 L0001542         0   0.12880E-05  415044.2 3766451.0   122.8     3.49     6.51
3.25     YES   HRDOW
 L0001543         0   0.12880E-05  415058.1 3766449.3   122.9     3.49     6.51
3.25     YES   HRDOW
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↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                  *** 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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 L0001544         0   0.12880E-05  415071.9 3766447.0   123.1     3.49     6.51
3.25     YES   HRDOW
 L0001545         0   0.12880E-05  415085.5 3766443.9   123.3     3.49     6.51
3.25     YES   HRDOW
 L0001546         0   0.12880E-05  415099.2 3766440.8   123.7     3.49     6.51
3.25     YES   HRDOW
 L0001547         0   0.12880E-05  415112.8 3766437.7   124.2     3.49     6.51
3.25     YES   HRDOW
 L0001548         0   0.12880E-05  415126.1 3766433.4   124.7     3.49     6.51
3.25     YES   HRDOW
 L0001549         0   0.12880E-05  415139.2 3766428.4   125.3     3.49     6.51
3.25     YES   HRDOW
 L0001550         0   0.12880E-05  415152.3 3766423.4   125.8     3.49     6.51
3.25     YES   HRDOW
 L0001551         0   0.12880E-05  415165.3 3766418.4   126.4     3.49     6.51
3.25     YES   HRDOW
 L0001552         0   0.12880E-05  415177.9 3766412.2   127.0     3.49     6.51
3.25     YES   HRDOW
 L0001553         0   0.12880E-05  415190.5 3766406.0   127.3     3.49     6.51
3.25     YES   HRDOW
 L0001554         0   0.12880E-05  415203.0 3766399.8   127.7     3.49     6.51
3.25     YES   HRDOW
 L0001555         0   0.12880E-05  415215.6 3766393.6   128.4     3.49     6.51
3.25     YES   HRDOW
 L0001556         0   0.12880E-05  415228.1 3766387.4   129.0     3.49     6.51
3.25     YES   HRDOW
 L0001557         0   0.12880E-05  415239.3 3766379.1   129.3     3.49     6.51
3.25     YES   HRDOW
 L0001558         0   0.12880E-05  415250.0 3766370.1   129.6     3.49     6.51
3.25     YES   HRDOW
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 L0001559         0   0.12880E-05  415260.8 3766361.2   130.2      3.49      6.51
3.25     YES   HRDOW
 L0001560         0   0.12880E-05  415271.8 3766352.5   130.7      3.49      6.51
3.25     YES   HRDOW
 L0001561         0   0.12880E-05  415282.8 3766343.8   131.2      3.49      6.51
3.25     YES   HRDOW
 L0001562         0   0.12880E-05  415293.4 3766334.7   131.6      3.49      6.51
3.25     YES   HRDOW
 L0001563         0   0.12880E-05  415303.3 3766324.8   132.1      3.49      6.51
3.25     YES   HRDOW
 L0001564         0   0.12880E-05  415313.2 3766314.9   132.5      3.49      6.51
3.25     YES   HRDOW
 L0001565         0   0.12880E-05  415323.1 3766305.0   133.1      3.49      6.51
3.25     YES   HRDOW
 L0001566         0   0.12880E-05  415333.0 3766295.1   133.6      3.49      6.51
3.25     YES   HRDOW
 L0001567         0   0.12880E-05  415342.5 3766284.9   134.2      3.49      6.51
3.25     YES   HRDOW
 L0001568         0   0.12880E-05  415350.7 3766273.6   134.5      3.49      6.51
3.25     YES   HRDOW
 L0001569         0   0.12880E-05  415358.9 3766262.2   135.0      3.49      6.51
3.25     YES   HRDOW
 L0001570         0   0.12880E-05  415366.7 3766250.6   135.6      3.49      6.51
3.25     YES   HRDOW
 L0001571         0   0.12880E-05  415373.7 3766238.5   136.0      3.49      6.51
3.25     YES   HRDOW
 L0001572         0   0.12880E-05  415380.7 3766226.4   136.3      3.49      6.51
3.25     YES   HRDOW
 L0001573         0   0.12880E-05  415387.8 3766214.3   136.5      3.49      6.51
3.25     YES   HRDOW
 L0001574         0   0.12880E-05  415394.8 3766202.2   137.2      3.49      6.51
3.25     YES   HRDOW
 L0001575         0   0.12880E-05  415401.8 3766190.0   137.5      3.49      6.51
3.25     YES   HRDOW
 L0001576         0   0.12880E-05  415408.9 3766178.0   137.1      3.49      6.51
3.25     YES   HRDOW
 L0001577         0   0.12880E-05  415416.4 3766166.1   137.4      3.49      6.51
3.25     YES   HRDOW
 L0001578         0   0.12880E-05  415423.9 3766154.3   137.6      3.49      6.51
3.25     YES   HRDOW
 L0001579         0   0.12880E-05  415431.0 3766142.3   137.3      3.49      6.51
3.25     YES   HRDOW
 L0001580         0   0.12880E-05  415438.2 3766130.2   137.4      3.49      6.51
3.25     YES   HRDOW
 L0001581         0   0.12880E-05  415446.1 3766118.8   137.5      3.49      6.51
3.25     YES   HRDOW
 L0001582         0   0.12880E-05  415455.0 3766108.0   137.4      3.49      6.51
3.25     YES   HRDOW
 L0001583         0   0.12880E-05  415464.0 3766097.2   137.3      3.49      6.51
3.25     YES   HRDOW
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                  *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0001584         0   0.12880E-05  415472.9 3766086.4   137.2     3.49     6.51
3.25     YES   HRDOW
 L0001585         0   0.12880E-05  415481.8 3766075.7   137.1     3.49     6.51
3.25     YES   HRDOW
 L0001586         0   0.12880E-05  415491.5 3766065.5   136.9     3.49     6.51
3.25     YES   HRDOW
 L0001587         0   0.12880E-05  415501.4 3766055.6   136.7     3.49     6.51
3.25     YES   HRDOW
 L0001588         0   0.12880E-05  415511.3 3766045.8   136.5     3.49     6.51
3.25     YES   HRDOW
 L0001589         0   0.12880E-05  415521.9 3766036.5   136.5     3.49     6.51
3.25     YES   HRDOW
 L0001590         0   0.12880E-05  415532.4 3766027.3   136.5     3.49     6.51
3.25     YES   HRDOW
 L0001591         0   0.12880E-05  415542.9 3766018.1   136.5     3.49     6.51
3.25     YES   HRDOW
 VOL1             0   0.11529E-03  413528.5 3766537.3   106.1     5.00     9.56
1.40     YES   HRDOW
 VOL2             0   0.11529E-03  413569.6 3766534.0   106.0     5.00     9.56
1.40     YES   HRDOW
 VOL3             0   0.11529E-03  413610.7 3766529.0   106.2     5.00     9.56
1.40     YES   HRDOW
 VOL4             0   0.11529E-03  413651.4 3766525.0   106.5     5.00     9.56
1.40     YES   HRDOW
 VOL5             0   0.11529E-03  413692.2 3766524.5   106.6     5.00     9.56
1.40     YES   HRDOW
 VOL6             0   0.11529E-03  413524.5 3766500.0   106.0     5.00     9.56
1.40     YES   HRDOW
 VOL7             0   0.11529E-03  413565.6 3766496.7   106.2     5.00     9.56
1.40     YES   HRDOW
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 VOL8             0   0.11529E-03  413606.7 3766491.7   106.3     5.00     9.56
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 VOL9             0   0.11529E-03  413647.3 3766487.7   106.5     5.00     9.56
1.40     YES   HRDOW
 VOL10            0   0.11529E-03  413688.2 3766487.2   106.8     5.00     9.56
1.40     YES   HRDOW
 VOL11            0   0.11529E-03  413521.7 3766462.1   106.1     5.00     9.56
1.40     YES   HRDOW
 VOL12            0   0.11529E-03  413562.9 3766458.8   106.1     5.00     9.56
1.40     YES   HRDOW
 VOL13            0   0.11529E-03  413604.0 3766453.8   106.3     5.00     9.56
1.40     YES   HRDOW
 VOL14            0   0.11529E-03  413644.6 3766449.8   106.4     5.00     9.56
1.40     YES   HRDOW
 VOL15            0   0.11529E-03  413685.5 3766449.3   106.7     5.00     9.56
1.40     YES   HRDOW
 VOL16            0   0.11529E-03  413518.7 3766423.7   105.4     5.00     9.56
1.40     YES   HRDOW
 VOL17            0   0.11529E-03  413559.9 3766420.5   105.7     5.00     9.56
1.40     YES   HRDOW
 VOL18            0   0.11529E-03  413601.0 3766415.5   105.8     5.00     9.56
1.40     YES   HRDOW
 VOL19            0   0.11529E-03  413641.6 3766411.5   106.0     5.00     9.56
1.40     YES   HRDOW
 VOL20            0   0.11529E-03  413682.4 3766411.0   106.7     5.00     9.56
1.40     YES   HRDOW
 VOL21            0   0.11529E-03  413513.7 3766385.9   105.9     5.00     9.56
1.40     YES   HRDOW
 VOL22            0   0.11529E-03  413554.8 3766382.6   105.9     5.00     9.56
1.40     YES   HRDOW
 VOL23            0   0.11529E-03  413596.0 3766377.6   106.4     5.00     9.56
1.40     YES   HRDOW
 VOL24            0   0.11529E-03  413636.6 3766373.6   106.4     5.00     9.56
1.40     YES   HRDOW
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1.40     YES   HRDOW
 VOL26            0   0.11529E-03  413552.3 3766368.3   105.8     5.00     9.56
1.40     YES   HRDOW
 VOL27            0   0.11529E-03  413593.4 3766366.5   106.4     5.00     9.56
1.40     YES   HRDOW
 VOL28            0   0.11529E-03  413635.1 3766360.8   106.4     5.00     9.56
1.40     YES   HRDOW
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***         08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
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                                             *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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             VOL1        , VOL2        , VOL3        , VOL4        , VOL5        ,
VOL6        , VOL7         , VOL8         ,

             VOL9        , VOL10       , VOL11       , VOL12       , VOL13       ,
VOL14       , VOL15        , VOL16        ,

             VOL17       , VOL18       , VOL19       , VOL20       , VOL21       ,
VOL22       , VOL23        , VOL24        ,

             VOL25       , VOL26       , VOL27       , VOL28       ,
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                      SOURCE IDs
  --------   ---------                                      ----------



              9818605.   L0001344    , L0001345    , L0001346    , L0001347    ,
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L0001501    , L0001502    , L0001503    ,
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------



             L0001504    , L0001505    , L0001506    , L0001507    , L0001508    ,
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             VOL1        , VOL2        , VOL3        , VOL4        , VOL5        ,
VOL6        , VOL7        , VOL8        ,

             VOL9        , VOL10       , VOL11       , VOL12       , VOL13       ,
VOL14       , VOL15       , VOL16       ,

             VOL17       , VOL18       , VOL19       , VOL20       , VOL21       ,
VOL22       , VOL23       , VOL24       ,

             VOL25       , VOL26       , VOL27       , VOL28       ,
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001344     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
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 *** AERMET - VERSION  16216 ***   ***
                       ***        13:22:04

                                  PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001345     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                       ***        13:22:04

                                  PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001346     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
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6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001347     ; SOURCE TYPE = VOLUME    :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001348     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001349     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001350     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001351     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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```
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001352     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  22
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001353     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE  23
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001354     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  24
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001355     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001356     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001357     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                  PAGE  27
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001358     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
```

```
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  28
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001359     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
```

```
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001360     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
```

```
 SOURCE ID = L0001361     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS 
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  31
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY 
OF WEEK (HRDOW) *

 SOURCE ID = L0001362     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001363     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

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22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001364     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001365     ; SOURCE TYPE = VOLUME   :
```

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001366     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001367     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  37
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001368     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  38
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001369     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
```

```
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  39
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001370     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
```

```
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001371     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001372     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001373     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                          ***      13:22:04

                                   PAGE  43
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                      * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001374     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
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22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  44
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001375     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04
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                                            PAGE  45
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                            * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001376     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                            PAGE  46
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                            * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001377     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  47
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001378     ; SOURCE TYPE = VOLUME    :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  48
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001379     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  49
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001380     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  50
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001381     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
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14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE  51
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001382     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  52
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001383     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  53
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
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OF WEEK (HRDOW) *

 SOURCE ID = L0001384     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  54
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001385     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
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22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  55
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001386     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
```

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  56
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001387     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  57
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
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```
 SOURCE ID = L0001388     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                  PAGE  58
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001389     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  59
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001390     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  60
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001391     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  61
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001392     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
```

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HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***         08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                  PAGE  62
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001393     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

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    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  63
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001394     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
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 *** AERMET - VERSION  16216 ***   ***
                       ***        13:22:04

                                  PAGE  64
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001395     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                       ***        13:22:04

                                  PAGE  65
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001396     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  66
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001397     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE  67
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001398     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04
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                                   PAGE  68
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001399     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  69
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001400     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                  PAGE  70
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001401     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001402     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE  72
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001403     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***        13:22:04

                                   PAGE  73
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001404     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

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    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE  74
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001405     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001406     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001407     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001408     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
```

```
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  78
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001409     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
```

```
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  79
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001410     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  80
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
```

```
 SOURCE ID = L0001411     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  81
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001412     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE  82
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                           * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001413     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

```
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  83
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001414     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  84
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001415     ; SOURCE TYPE = VOLUME   :
```

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS 
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***                                            
                            ***       13:22:04

                                   PAGE  85
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                       * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY 
OF WEEK (HRDOW) *

 SOURCE ID = L0001416     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  86
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001417     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
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HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  87
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001418     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  88
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001419     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc            ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  89
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001420     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
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14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                       ***       13:22:04

                                   PAGE  90
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001421     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001422     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001423     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                          ***       13:22:04

                                   PAGE  93
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001424     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
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22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  94
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001425     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04
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                                    PAGE  95
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001426     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                    PAGE  96
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001427     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE  97
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001428     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001429     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001430     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 100
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001431     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
```

```
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                          ***       13:22:04

                                   PAGE 101
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001432     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
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    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001433     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
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OF WEEK (HRDOW) *

 SOURCE ID = L0001434     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS 
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***                                           
                        ***        13:22:04

                                   PAGE 104
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY 
OF WEEK (HRDOW) *

 SOURCE ID = L0001435     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
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22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                          ***       13:22:04

                                   PAGE 105
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001436     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
```

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 106
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001437     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 107
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
```

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 SOURCE ID = L0001438     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS 
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 108
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY 
OF WEEK (HRDOW) *

 SOURCE ID = L0001439     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
```

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    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 109
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001440     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 110
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001441     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001442     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
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HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                  PAGE 112
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001443     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001444     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 114
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001445     ; SOURCE TYPE = VOLUME   :
  HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR
HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 115
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001446     ; SOURCE TYPE = VOLUME   :
  HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR
HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                          ***      13:22:04

                                   PAGE 116
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001447     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
```

```
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001448     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                                   PAGE 118
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001449     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 119
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001450     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 120
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001451     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 121
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001452     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001453     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 123
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001454     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                   DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                   DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                          ***       13:22:04

                                   PAGE 124
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                       * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001455     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                                   DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                   DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                   DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
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6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 125
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001456     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 126
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001457     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001458     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
```

```
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 128
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001459     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
```

```
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 129
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001460     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 130
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
```

```
 SOURCE ID = L0001461     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 131
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001462     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001463     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

```
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 133
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001464     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 134
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001465     ; SOURCE TYPE = VOLUME   :
```

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 135
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001466     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 136
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001467     ; SOURCE TYPE = VOLUME    :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
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HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 137
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001468     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 138
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001469     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
```

```
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 139
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001470     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
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14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 140
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001471     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
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                        ***        13:22:04

                                   PAGE 141
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001472     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 142
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001473     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
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                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 143
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001474     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
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22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 144
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001475     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04
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                                        PAGE 145
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001476     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                        PAGE 146
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001477     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 147
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001478     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
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    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 148
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001479     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 149
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001480     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 150
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001481     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
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14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 151
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001482     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
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    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 152
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001483     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 153
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
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OF WEEK (HRDOW) *

 SOURCE ID = L0001484     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 154
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001485     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

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22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 155
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001486     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
```

```
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 156
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001487     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 157
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
```

```
 SOURCE ID = L0001488     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY 
OF WEEK (HRDOW) *

 SOURCE ID = L0001489     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 159
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001490     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 160
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001491     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 161
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001492     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
```

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HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 162
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001493     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

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    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
⮝ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 163
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001494     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
⮝ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
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 *** AERMET - VERSION  16216 ***   ***
                       ***        13:22:04

                                  PAGE 164
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001495     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                       ***        13:22:04

                                  PAGE 165
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001496     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 166
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001497     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 167
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001498     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04
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                                            PAGE 168
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001499     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                            PAGE 169
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001500     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 170
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001501     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001502     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001503     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 173
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001504     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 174
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001505     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001506     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001507     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 177
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001508     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
```

```
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001509     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
```

```
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001510     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
```

```
 SOURCE ID = L0001511     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 181
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001512     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 182
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                            * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001513     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

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22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001514     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001515     ; SOURCE TYPE = VOLUME   :
```

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                           ***       13:22:04

                                   PAGE 185
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                       * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001516     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

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6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001517     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 187
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001518     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 188
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001519     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
```

```
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 189
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001520     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
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14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001521     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                        ***        13:22:04

                                   PAGE 191
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001522     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001523     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
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                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 193
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001524     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
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22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
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                                   PAGE 194
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001525     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04
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                                    PAGE 195
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001526     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                    PAGE 196
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001527     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
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6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 197
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001528     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001529     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001530     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 200
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001531     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
```

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14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                          ***        13:22:04

                                     PAGE 201
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001532     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

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    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 202
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001533     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 203
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
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OF WEEK (HRDOW) *

 SOURCE ID = L0001534     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 204
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001535     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
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```
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                          ***        13:22:04

                                   PAGE 205
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001536     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
```

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 206
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001537     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 207
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
```

```
 SOURCE ID = L0001538     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS 
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***                                        
                         ***       13:22:04

                                   PAGE 208
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                      * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY 
OF WEEK (HRDOW) *

 SOURCE ID = L0001539     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 209
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001540     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 210
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001541     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 211
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001542     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
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HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 212
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001543     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

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    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 213
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001544     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
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 *** AERMET - VERSION  16216 ***   ***
                      ***        13:22:04

                                 PAGE 214
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001545     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                      ***        13:22:04

                                 PAGE 215
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001546     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 216
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001547     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 217
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001548     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04
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                                   PAGE 218
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001549     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 219
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001550     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
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    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001551     ; SOURCE TYPE = VOLUME    :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 221
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001552     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 222
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001553     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001554     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

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    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 224
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001555     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
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6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 225
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001556     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 226
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001557     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 227
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001558     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
```

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 228
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001559     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
```

```
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001560     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
```

```
 SOURCE ID = L0001561     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 231
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001562     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 232
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                      * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001563     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
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22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 233
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001564     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 234
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001565     ; SOURCE TYPE = VOLUME   :
```

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                      * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001566     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 236
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001567     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
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HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 237
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001568     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 238
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001569     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 239
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001570     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
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14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 240
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                       * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001571     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
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                        ***        13:22:04

                                   PAGE 241
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001572     ; SOURCE TYPE = VOLUME   :
  HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR
HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 242
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001573     ; SOURCE TYPE = VOLUME   :
  HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR
HOUR    SCALAR   HOUR    SCALAR   HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
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                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001574     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
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22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 244
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001575     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04
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                                            PAGE 245
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001576     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                            PAGE 246
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001577     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
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6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 247
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001578     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001579     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001580     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 250
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001581     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
```

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14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                          ***       13:22:04

                                            PAGE 251
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001582     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
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```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001583     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
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```
OF WEEK (HRDOW) *

 SOURCE ID = L0001584     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 254
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001585     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

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22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 255
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001586     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
```

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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 256
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001587     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 257
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
```

```
 SOURCE ID = L0001588     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
⬆ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS 
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 258
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY 
OF WEEK (HRDOW) *

 SOURCE ID = L0001589     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
```

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    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 259
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001590     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = L0001591     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL1         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
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```
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL2         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                       ***        13:22:04

                                   PAGE 263
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL3         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
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 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 264
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL4         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 265
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL5         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 266
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL6         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
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   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL7         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                                    PAGE 268
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL8         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                    PAGE 269
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL9         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***    ***
                        ***        13:22:04

                                   PAGE 270
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL10        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
⬆ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL11        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
⬆ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 272
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL12        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 273
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL13        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                          ***       13:22:04

                                   PAGE 274
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL14        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

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6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL15        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL16        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL17        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
```

```
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 278
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL18        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
```

```
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 279
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL19        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 280
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *
```

```
 SOURCE ID = VOL20        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL21        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 282
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                           * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL22        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
```

```
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 283
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL23        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 284
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL24        ; SOURCE TYPE = VOLUME   :
```

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 285
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                       * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL25        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
```

```
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 286
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL26        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
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HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 287
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL27        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                         ***       13:22:04

                                   PAGE 288
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = VOL28        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
```

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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01
14  .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00
6  .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00
14  .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00
22  .0000E+00   23  .0000E+00   24  .0000E+00
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc          ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                  PAGE 289
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                              *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                         (METERS)

     ( 413744.9, 3766519.5,     108.2,     108.2,       0.0);         ( 413740.0,
3766502.6,     108.0,     108.0,       0.0);
     ( 413733.5, 3766483.9,     107.6,     107.6,       0.0);         ( 413726.8,
3766437.2,     107.5,     107.5,       0.0);
     ( 413725.1, 3766406.9,     107.6,     107.6,       0.0);         ( 413678.4,
3766373.5,     107.0,     217.4,       0.0);
     ( 413722.5, 3766355.9,     107.6,     217.4,       0.0);         ( 413624.9,
3766325.6,     106.6,     227.3,       0.0);
     ( 413514.5, 3766335.7,     105.8,     227.3,       0.0);         ( 413412.1,
3766344.1,     103.4,     227.5,       0.0);
     ( 413393.4, 3766345.3,     103.3,     227.5,       0.0);         ( 413375.9,
3766347.1,     102.9,     227.5,       0.0);
     ( 413357.6, 3766349.4,     102.5,     227.5,       0.0);         ( 413341.1,
3766350.4,     102.4,     227.5,       0.0);
     ( 413322.4, 3766351.4,     104.1,     227.5,       0.0);         ( 413499.7,
```

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3766516.7,     105.8,     105.8,       0.0);
     ( 413492.7, 3766443.9,     105.5,      105.5,       0.0);         ( 413486.7,
3766367.9,     104.8,     227.3,       0.0);
     ( 413501.5, 3766541.4,     105.9,      105.9,       0.0);         ( 413431.7,
3766559.6,     104.9,     104.9,       0.0);
     ( 413743.9, 3766584.4,     108.0,      108.0,       0.0);         ( 413706.1,
3766591.8,     107.5,     107.5,       0.0);
     ( 413681.1, 3766587.4,     107.1,      107.1,       0.0);         ( 413596.6,
3766601.4,     106.3,     106.3,       0.0);
     ( 413558.8, 3766600.6,     105.9,      105.9,       0.0);         ( 413546.5,
3766601.2,     105.8,     105.8,       0.0);
     ( 413499.8, 3766605.7,     105.5,      105.5,       0.0);         ( 413531.9,
3766603.4,     105.6,     105.6,       0.0);
     ( 413130.9, 3766587.0,     103.7,      103.7,       0.0);         ( 413324.2,
3766616.0,     104.3,     104.3,       0.0);
     ( 413396.9, 3766617.3,     104.6,      104.6,       0.0);         ( 413464.0,
3766620.3,     105.2,     105.2,       0.0);
     ( 413136.1, 3766574.1,     103.8,      103.8,       0.0);         ( 413134.2,
3766540.8,     103.9,     103.9,       0.0);
     ( 413128.4, 3766488.8,     103.6,      103.6,       0.0);         ( 413127.1,
3766461.9,     103.6,     103.6,       0.0);
     ( 413134.5, 3766412.2,     102.9,      102.9,       0.0);         ( 413327.5,
3766399.7,     104.8,     226.9,       0.0);
     ( 413497.3, 3766286.0,     105.8,      228.1,       0.0);         ( 413575.4,
3765897.3,     113.8,     228.1,       0.0);
     ( 413480.4, 3765903.7,     112.7,      228.1,       0.0);         ( 413668.1,
3765991.2,     109.8,     228.1,       0.0);
     ( 413722.6, 3766307.6,     106.0,      227.3,       0.0);         ( 413702.2,
3766264.8,     107.4,     227.5,       0.0);
     ( 414187.7, 3766655.2,     116.2,      116.2,       0.0);         ( 414288.5,
3765869.1,     112.2,     226.9,       0.0);
     ( 414673.6, 3766082.9,     116.6,      116.6,       0.0);         ( 414691.4,
3766106.2,     116.8,     116.8,       0.0);
     ( 412658.0, 3766957.2,     102.5,      102.5,       0.0);         ( 412700.1,
3766979.8,     102.8,     102.8,       0.0);
     ( 414128.2, 3766559.3,     113.8,      113.8,       0.0);         ( 414457.1,
3766523.7,     114.4,     114.4,       0.0);
     ( 414471.2, 3766487.1,     114.3,      114.3,       0.0);         ( 414002.8,
3766529.4,     112.4,     112.4,       0.0);
     ( 414867.2, 3766449.6,     120.0,      287.2,       0.0);         ( 415263.8,
3766340.0,     130.4,     301.6,       0.0);
     ( 415169.5, 3766440.6,     127.2,      301.4,       0.0);         ( 415366.7,
3766218.8,     135.1,     301.9,       0.0);
     ( 415459.7, 3766230.6,     158.9,      294.1,       0.0);         ( 415429.5,
3766100.5,     136.4,     301.9,       0.0);
     ( 415450.0, 3766154.3,     139.0,      301.9,       0.0);         ( 414857.1,
3766487.4,     120.0,     287.2,       0.0);
     ( 412861.0, 3766290.2,     103.0,      227.3,       0.0);         ( 412848.2,
3766310.4,     103.0,     103.0,       0.0);
     ( 412854.6, 3766235.2,     103.0,      227.5,       0.0);         ( 412645.5,
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3766082.2,     104.7,     228.1,       0.0);
     ( 412619.6, 3766636.1,     101.2,     101.2,       0.0);         ( 412793.6,
3766657.0,     102.4,     102.4,       0.0);
     ( 412563.5, 3766676.3,     101.0,     101.0,       0.0);         ( 412668.6,
3766666.4,     101.8,     101.8,       0.0);
     ( 412796.8, 3766619.1,     102.4,     102.4,       0.0);         ( 412941.1,
3766604.7,     103.3,     103.3,       0.0);
     ( 412921.8, 3766644.7,     102.8,     102.8,       0.0);         ( 413423.5,
3766296.4,     105.5,     228.1,       0.0);
     ( 413747.3, 3766542.9,     108.2,     108.2,       0.0);

↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 290
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                      * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT
BE PERFORMED *
                        LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR
FASTAREA/FASTALL


                              SOURCE          - - RECEPTOR LOCATION - -
DISTANCE
                                ID            XR (METERS)   YR (METERS)
(METERS)
                            - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -

                             L0001560           415263.8     3766340.0
0.86
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 291
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                            *** 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
```

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            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 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 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       13:22:04

                                   PAGE 292
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   PICO_V9_ADJU\PICO_v9.SFC
                  Met Version:  16216
   Profile file:   PICO_V9_ADJU\PICO_v9.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3166                  Upper air station no.:     3190
                  Name: UNKNOWN                                 Name: UNKNOWN

                  Year:   2010                                  Year:   2010

 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
```

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- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 10 01 01   1 01  -38.6  0.384 -9.000 -9.000 -999.  572.    162.4  0.34   0.73
1.00    3.10  321.    9.1  283.8    5.5
 10 01 01   1 02  -33.5  0.333 -9.000 -9.000 -999.  462.    121.8  0.34   0.73
1.00    2.70  217.    9.1  282.5    5.5
 10 01 01   1 03  -21.9  0.218 -9.000 -9.000 -999.  251.     52.2  0.34   0.73
1.00    1.80  290.    9.1  282.5    5.5
 10 01 01   1 04  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73
1.00    2.20  255.    9.1  282.0    5.5
 10 01 01   1 05  -21.9  0.218 -9.000 -9.000 -999.  245.     52.2  0.34   0.73
1.00    1.80  234.    9.1  282.0    5.5
 10 01 01   1 06  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73
1.00    2.20  258.    9.1  282.0    5.5
 10 01 01   1 07  -27.2  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73
1.00    2.20  213.    9.1  281.4    5.5
 10 01 01   1 08  -22.6  0.335 -9.000 -9.000 -999.  466.    151.7  0.34   0.73
0.54    2.70  215.    9.1  282.0    5.5
 10 01 01   1 09   26.9  0.249  0.347  0.008   56.  302.    -51.9  0.34   0.73
0.32    1.80  199.    9.1  284.2    5.5
 10 01 01   1 10   65.3  0.365  0.593  0.008  116.  529.    -67.5  0.34   0.73
0.24    2.70  117.    9.1  288.1    5.5
 10 01 01   1 11   94.5  0.374  0.933  0.008  311.  550.    -50.3  0.34   0.73
0.21    2.70  243.    9.1  290.4    5.5
 10 01 01   1 12  103.9  0.279  1.087  0.008  448.  359.    -19.0  0.34   0.73
0.20    1.80  130.    9.1  293.1    5.5
 10 01 01   1 13   83.7  0.273  1.073  0.008  533.  343.    -22.0  0.34   0.73
0.20    1.80  282.    9.1  294.9    5.5
 10 01 01   1 14   82.0  0.218  1.112  0.008  606.  245.    -11.4  0.34   0.73
0.21    1.30  290.    9.1  295.9    5.5
 10 01 01   1 15   38.9  0.202  0.881  0.008  636.  217.    -19.0  0.34   0.73
0.25    1.30  192.    9.1  294.9    5.5
 10 01 01   1 16   11.4  0.181  0.588  0.008  643.  185.    -47.4  0.34   0.73
0.33    1.30  218.    9.1  293.8    5.5
 10 01 01   1 17  -10.7  0.155 -9.000 -9.000 -999.  147.     31.4  0.34   0.73
0.60    1.30  255.    9.1  292.0    5.5
 10 01 01   1 18   -5.5  0.104 -9.000 -9.000 -999.   81.     18.6  0.34   0.73
1.00    0.90  129.    9.1  289.2    5.5
 10 01 01   1 19  -11.8  0.154 -9.000 -9.000 -999.  145.     27.8  0.34   0.73
1.00    1.30  264.    9.1  287.5    5.5
 10 01 01   1 20  -11.8  0.154 -9.000 -9.000 -999.  144.     27.8  0.34   0.73
1.00    1.30   25.    9.1  287.0    5.5
 10 01 01   1 21  -21.6  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73
1.00    1.80  343.    9.1  285.9    5.5
 10 01 01   1 22  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73
1.00    1.80  332.    9.1  284.9    5.5
 10 01 01   1 23  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73
1.00    1.80  178.    9.1  284.2    5.5
 10 01 01   1 24  -11.8  0.154 -9.000 -9.000 -999.  145.     27.6  0.34   0.73
1.00    1.30   28.    9.1  283.1    5.5
```

```
 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   283.8   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  321.    3.10  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                       ***       13:22:04

                                   PAGE 293
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0001344    , L0001345
 , L0001346    , L0001347    , L0001348    ,
                 L0001349    , L0001350    , L0001351    , L0001352    , L0001353
 , L0001354    , L0001355    , L0001356    ,
                 L0001357    , L0001358    , L0001359    , L0001360    , L0001361
 , L0001362    , L0001363    , L0001364    ,
                 L0001365    , L0001366    , L0001367    , L0001368    , L0001369
 , L0001370    , L0001371    ,  . . .      ,

                                             *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         413744.94    3766519.49        0.02354                     413740.02
3766502.57        0.02718
         413733.52    3766483.87        0.03293                     413726.83
3766437.22        0.03398
         413725.11    3766406.92        0.02532                     413678.41
3766373.46        0.02430
         413722.50    3766355.94        0.00806                     413624.88
3766325.63        0.01754
         413514.47    3766335.67        0.01720                     413412.12
3766344.13        0.00375
         413393.43    3766345.31        0.00301                     413375.91
3766347.08        0.00250
         413357.60    3766349.44        0.00210                     413341.07
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3766350.43         0.00180
          413322.38    3766351.41         0.00154                                 413499.71
3766516.74         0.02438
          413492.73    3766443.92         0.02557                                 413486.72
3766367.94         0.02397
          413501.55    3766541.41         0.02148                                 413431.74
3766559.56         0.00519
          413743.87    3766584.41         0.01341                                 413706.06
3766591.77         0.01529
          413681.08    3766587.43         0.01744                                 413596.64
3766601.40         0.01480
          413558.85    3766600.62         0.01336                                 413546.45
3766601.21         0.01238
          413499.80    3766605.74         0.00778                                 413531.88
3766603.37         0.01079
          413130.94    3766587.04         0.00159                                 413324.23
3766615.97         0.00228
          413396.86    3766617.35         0.00292                                 413463.98
3766620.30         0.00462
          413136.12    3766574.10         0.00111                                 413134.19
3766540.77         0.00069
          413128.42    3766488.84         0.00053                                 413127.14
3766461.92         0.00051
          413134.51    3766412.24         0.00050                                 413327.46
3766399.74         0.00172
          413497.33    3766285.96         0.00509                                 413575.39
3765897.33         0.00022
          413480.36    3765903.74         0.00024                                 413668.15
3765991.22         0.00034
          413722.62    3766307.65         0.00419                                 413702.24
3766264.81         0.00284
          414187.73    3766655.18         0.00065                                 414288.53
3765869.15         0.00008
          414673.58    3766082.86         0.00007                                 414691.39
3766106.20         0.00007
          412657.96    3766957.17         0.00014                                 412700.11
3766979.80         0.00014
          414128.17    3766559.27         0.00128                                 414457.12
3766523.68         0.00106
          414471.22    3766487.13         0.00104                                 414002.81
3766529.45         0.00196
          414867.18    3766449.62         0.00088                                 415263.78
3766339.97         0.00072
          415169.52    3766440.65         0.00080                                 415366.69
3766218.78         0.00092
          415459.67    3766230.64         0.00020                                 415429.53
3766100.48         0.00059
          415450.05    3766154.34         0.00078                                 414857.14
3766487.44         0.00097
          412860.95    3766290.25         0.00018                                 412848.25
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3766310.37        0.00017
         412854.60    3766235.18        0.00017                      412645.45
3766082.16        0.00010
         412619.57    3766636.10        0.00157                      412793.57
3766656.98        0.00158
         412563.52    3766676.32        0.00160                      412668.56
3766666.37        0.00166
         412796.82    3766619.11        0.00151                      412941.11
3766604.73        0.00145
         412921.84    3766644.70        0.00169                      413423.47
3766296.39        0.00305
         413747.27    3766542.91        0.02072

↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        13:22:04

                                   PAGE 294
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                        *** THE SUMMARY OF MAXIMUM PERIOD ( 43848
HRS) RESULTS ***


                                    ** 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       0.03398 AT (  413726.83,  3766437.22,
107.46,   107.46,    0.00)  DC
          2ND HIGHEST VALUE IS       0.03293 AT (  413733.52,  3766483.87,
107.65,   107.65,    0.00)  DC
          3RD HIGHEST VALUE IS       0.02718 AT (  413740.02,  3766502.57,
107.97,   107.97,    0.00)  DC
          4TH HIGHEST VALUE IS       0.02557 AT (  413492.73,  3766443.92,
105.53,   105.53,    0.00)  DC
          5TH HIGHEST VALUE IS       0.02532 AT (  413725.11,  3766406.92,
107.61,   107.61,    0.00)  DC
          6TH HIGHEST VALUE IS       0.02438 AT (  413499.71,  3766516.74,
105.81,   105.81,    0.00)  DC
          7TH HIGHEST VALUE IS       0.02430 AT (  413678.41,  3766373.46,
107.03,   217.44,    0.00)  DC
          8TH HIGHEST VALUE IS       0.02397 AT (  413486.72,  3766367.94,
```

```
104.80,   227.27,    0.00)  DC
          9TH HIGHEST VALUE IS       0.02354 AT (  413744.94,  3766519.49,
108.23,   108.23,    0.00)  DC
         10TH HIGHEST VALUE IS       0.02148 AT (  413501.55,  3766541.41,
105.93,   105.93,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           4 Warning Message(s)
 A Total of        1277 Informational Message(s)

 A Total of       43848 Hours Were Processed

 A Total of         152 Calm Hours Identified

 A Total of        1125 Missing Hours Identified (  2.57 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    4102       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187    4102       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 MX W450   26305       CHKDAT: Record Out of Sequence in Meteorological File at:
  15010101
 MX W450   26305       CHKDAT: Record Out of Sequence in Meteorological File at:
2 year gap

    ************************************
    *** AERMOD Finishes Successfully ***
```

```
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.2.0
** Lakes Environmental Software Inc.
** Date: 8/24/2023
** File: C:\Users\Michael Tirohn\Desktop\HRAs\15271 Amar Kaplan\15271-02 OPS
HRA\15271-02 OPS HRA.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\15271-02 OPS HRA\15271-02 OPS HRA.isc
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "15271-02 OPS HRA.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 On-Site Idling
** PREFIX
** Length of Side = 9.59
** Configuration = Adjacent
** Emission Rate = 0.00001209
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 413524.497, 3766413.240, 105.29, 3.49, 4.46
```

```
** 413639.894, 3766403.296, 106.13, 3.49, 4.46
** ------------------------------------------------------------------------
   LOCATION L0001040     VOLUME   413529.274 3766412.829 105.42
   LOCATION L0001041     VOLUME   413538.829 3766412.005 105.51
   LOCATION L0001042     VOLUME   413548.383 3766411.182 105.59
   LOCATION L0001043     VOLUME   413557.938 3766410.358 105.67
   LOCATION L0001044     VOLUME   413567.492 3766409.535 105.76
   LOCATION L0001045     VOLUME   413577.047 3766408.712 105.84
   LOCATION L0001046     VOLUME   413586.601 3766407.888 105.92
   LOCATION L0001047     VOLUME   413596.156 3766407.065 106.00
   LOCATION L0001048     VOLUME   413605.711 3766406.241 106.02
   LOCATION L0001049     VOLUME   413615.265 3766405.418 106.02
   LOCATION L0001050     VOLUME   413624.820 3766404.595 106.01
   LOCATION L0001051     VOLUME   413634.374 3766403.771 106.09
** End of LINE VOLUME Source ID = SLINE1
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Travel
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 6.269E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 16
** 413516.314, 3766557.841, 105.66, 3.49, 4.00
** 413512.398, 3766505.627, 105.97, 3.49, 4.00
** 413507.176, 3766447.407, 105.70, 3.49, 4.00
** 413503.260, 3766401.458, 105.57, 3.49, 4.00
** 413504.043, 3766391.537, 105.73, 3.49, 4.00
** 413537.461, 3766388.143, 105.81, 3.49, 4.00
** 413612.650, 3766383.183, 106.32, 3.49, 4.00
** 413645.806, 3766381.617, 106.60, 3.49, 4.00
** 413654.422, 3766395.453, 106.60, 3.49, 4.00
** 413660.688, 3766400.936, 106.24, 3.49, 4.00
** 413667.214, 3766401.719, 106.34, 3.49, 4.00
** 413675.569, 3766399.108, 106.91, 3.49, 4.00
** 413682.618, 3766399.892, 106.78, 3.49, 4.00
** 413687.056, 3766401.458, 106.77, 3.49, 4.00
** 413692.016, 3766401.719, 106.81, 3.49, 4.00
** 413702.720, 3766398.586, 107.36, 3.49, 4.00
** ------------------------------------------------------------------------
   LOCATION L0001052     VOLUME   413515.993 3766553.558 105.80
   LOCATION L0001053     VOLUME   413515.350 3766544.992 105.98
   LOCATION L0001054     VOLUME   413514.708 3766536.426 106.06
   LOCATION L0001055     VOLUME   413514.065 3766527.860 106.02
   LOCATION L0001056     VOLUME   413513.423 3766519.294 105.97
   LOCATION L0001057     VOLUME   413512.780 3766510.729 105.93
   LOCATION L0001058     VOLUME   413512.088 3766502.167 105.92
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   LOCATION L0001059     VOLUME   413511.320 3766493.611 105.90
   LOCATION L0001060     VOLUME   413510.553 3766485.055 105.89
   LOCATION L0001061     VOLUME   413509.786 3766476.500 105.87
   LOCATION L0001062     VOLUME   413509.018 3766467.944 105.84
   LOCATION L0001063     VOLUME   413508.251 3766459.388 105.80
   LOCATION L0001064     VOLUME   413507.484 3766450.833 105.77
   LOCATION L0001065     VOLUME   413506.739 3766442.275 105.69
   LOCATION L0001066     VOLUME   413506.010 3766433.716 105.58
   LOCATION L0001067     VOLUME   413505.280 3766425.157 105.49
   LOCATION L0001068     VOLUME   413504.551 3766416.598 105.43
   LOCATION L0001069     VOLUME   413503.821 3766408.039 105.53
   LOCATION L0001070     VOLUME   413503.416 3766399.479 105.62
   LOCATION L0001071     VOLUME   413504.664 3766391.474 105.72
   LOCATION L0001072     VOLUME   413513.210 3766390.606 105.82
   LOCATION L0001073     VOLUME   413521.756 3766389.738 105.92
   LOCATION L0001074     VOLUME   413530.302 3766388.870 105.85
   LOCATION L0001075     VOLUME   413538.852 3766388.052 105.78
   LOCATION L0001076     VOLUME   413547.423 3766387.486 105.69
   LOCATION L0001077     VOLUME   413555.995 3766386.921 105.87
   LOCATION L0001078     VOLUME   413564.566 3766386.355 106.05
   LOCATION L0001079     VOLUME   413573.137 3766385.790 106.23
   LOCATION L0001080     VOLUME   413581.709 3766385.224 106.31
   LOCATION L0001081     VOLUME   413590.280 3766384.659 106.39
   LOCATION L0001082     VOLUME   413598.851 3766384.093 106.46
   LOCATION L0001083     VOLUME   413607.423 3766383.528 106.38
   LOCATION L0001084     VOLUME   413615.998 3766383.025 106.29
   LOCATION L0001085     VOLUME   413624.578 3766382.619 106.22
   LOCATION L0001086     VOLUME   413633.159 3766382.214 106.35
   LOCATION L0001087     VOLUME   413641.739 3766381.809 106.48
   LOCATION L0001088     VOLUME   413648.194 3766385.452 106.57
   LOCATION L0001089     VOLUME   413652.735 3766392.744 106.50
   LOCATION L0001090     VOLUME   413658.484 3766399.008 106.49
   LOCATION L0001091     VOLUME   413666.310 3766401.611 106.59
   LOCATION L0001092     VOLUME   413674.544 3766399.429 106.81
   LOCATION L0001093     VOLUME   413683.017 3766400.033 106.92
   LOCATION L0001094     VOLUME   413691.357 3766401.685 107.00
   LOCATION L0001095     VOLUME   413699.627 3766399.492 107.14
** End of LINE VOLUME Source ID = SLINE2
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC Amar W 50%
** PREFIX
** Length of Side = 14.00
** Configuration = Adjacent
** Emission Rate = 4.062E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 3
** 413514.421, 3766573.965, 105.48, 3.49, 6.51
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** 412575.065, 3766656.666, 101.17, 3.49, 6.51
** 412309.798, 3766684.753, 100.31, 3.49, 6.51
** ----------------------------------------------------------------------
   LOCATION L0001096     VOLUME   413507.448 3766574.579 105.35
   LOCATION L0001097     VOLUME   413493.502 3766575.807 105.25
   LOCATION L0001098     VOLUME   413479.556 3766577.035 105.13
   LOCATION L0001099     VOLUME   413465.610 3766578.262 105.00
   LOCATION L0001100     VOLUME   413451.664 3766579.490 104.88
   LOCATION L0001101     VOLUME   413437.718 3766580.718 104.73
   LOCATION L0001102     VOLUME   413423.772 3766581.946 104.56
   LOCATION L0001103     VOLUME   413409.826 3766583.174 104.51
   LOCATION L0001104     VOLUME   413395.880 3766584.401 104.49
   LOCATION L0001105     VOLUME   413381.934 3766585.629 104.56
   LOCATION L0001106     VOLUME   413367.987 3766586.857 104.59
   LOCATION L0001107     VOLUME   413354.041 3766588.085 104.39
   LOCATION L0001108     VOLUME   413340.095 3766589.313 104.25
   LOCATION L0001109     VOLUME   413326.149 3766590.540 104.21
   LOCATION L0001110     VOLUME   413312.203 3766591.768 104.18
   LOCATION L0001111     VOLUME   413298.257 3766592.996 104.16
   LOCATION L0001112     VOLUME   413284.311 3766594.224 104.11
   LOCATION L0001113     VOLUME   413270.365 3766595.452 104.06
   LOCATION L0001114     VOLUME   413256.419 3766596.680 104.04
   LOCATION L0001115     VOLUME   413242.473 3766597.907 104.01
   LOCATION L0001116     VOLUME   413228.527 3766599.135 103.95
   LOCATION L0001117     VOLUME   413214.581 3766600.363 103.90
   LOCATION L0001118     VOLUME   413200.635 3766601.591 103.86
   LOCATION L0001119     VOLUME   413186.689 3766602.819 103.81
   LOCATION L0001120     VOLUME   413172.743 3766604.046 103.76
   LOCATION L0001121     VOLUME   413158.797 3766605.274 103.73
   LOCATION L0001122     VOLUME   413144.851 3766606.502 103.70
   LOCATION L0001123     VOLUME   413130.904 3766607.730 103.66
   LOCATION L0001124     VOLUME   413116.958 3766608.958 103.60
   LOCATION L0001125     VOLUME   413103.012 3766610.185 103.54
   LOCATION L0001126     VOLUME   413089.066 3766611.413 103.48
   LOCATION L0001127     VOLUME   413075.120 3766612.641 103.40
   LOCATION L0001128     VOLUME   413061.174 3766613.869 103.33
   LOCATION L0001129     VOLUME   413047.228 3766615.097 103.27
   LOCATION L0001130     VOLUME   413033.282 3766616.324 103.22
   LOCATION L0001131     VOLUME   413019.336 3766617.552 103.22
   LOCATION L0001132     VOLUME   413005.390 3766618.780 103.22
   LOCATION L0001133     VOLUME   412991.444 3766620.008 103.18
   LOCATION L0001134     VOLUME   412977.498 3766621.236 103.14
   LOCATION L0001135     VOLUME   412963.552 3766622.464 103.08
   LOCATION L0001136     VOLUME   412949.606 3766623.691 103.02
   LOCATION L0001137     VOLUME   412935.660 3766624.919 102.95
   LOCATION L0001138     VOLUME   412921.714 3766626.147 102.86
   LOCATION L0001139     VOLUME   412907.768 3766627.375 102.78
   LOCATION L0001140     VOLUME   412893.822 3766628.603 102.73
   LOCATION L0001141     VOLUME   412879.875 3766629.830 102.67
   LOCATION L0001142     VOLUME   412865.929 3766631.058 102.58
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   LOCATION L0001143     VOLUME   412851.983 3766632.286 102.52
   LOCATION L0001144     VOLUME   412838.037 3766633.514 102.48
   LOCATION L0001145     VOLUME   412824.091 3766634.742 102.43
   LOCATION L0001146     VOLUME   412810.145 3766635.969 102.37
   LOCATION L0001147     VOLUME   412796.199 3766637.197 102.29
   LOCATION L0001148     VOLUME   412782.253 3766638.425 102.22
   LOCATION L0001149     VOLUME   412768.307 3766639.653 102.17
   LOCATION L0001150     VOLUME   412754.361 3766640.881 102.12
   LOCATION L0001151     VOLUME   412740.415 3766642.108 102.01
   LOCATION L0001152     VOLUME   412726.469 3766643.336 101.91
   LOCATION L0001153     VOLUME   412712.523 3766644.564 101.82
   LOCATION L0001154     VOLUME   412698.577 3766645.792 101.72
   LOCATION L0001155     VOLUME   412684.631 3766647.020 101.57
   LOCATION L0001156     VOLUME   412670.685 3766648.247 101.47
   LOCATION L0001157     VOLUME   412656.739 3766649.475 101.42
   LOCATION L0001158     VOLUME   412642.793 3766650.703 101.36
   LOCATION L0001159     VOLUME   412628.846 3766651.931 101.31
   LOCATION L0001160     VOLUME   412614.900 3766653.159 101.27
   LOCATION L0001161     VOLUME   412600.954 3766654.387 101.23
   LOCATION L0001162     VOLUME   412587.008 3766655.614 101.18
   LOCATION L0001163     VOLUME   412573.066 3766656.878 101.11
   LOCATION L0001164     VOLUME   412559.143 3766658.352 101.02
   LOCATION L0001165     VOLUME   412545.221 3766659.826 100.94
   LOCATION L0001166     VOLUME   412531.299 3766661.300 100.92
   LOCATION L0001167     VOLUME   412517.377 3766662.774 100.90
   LOCATION L0001168     VOLUME   412503.455 3766664.248 100.87
   LOCATION L0001169     VOLUME   412489.533 3766665.722 100.86
   LOCATION L0001170     VOLUME   412475.610 3766667.196 100.85
   LOCATION L0001171     VOLUME   412461.688 3766668.670 100.85
   LOCATION L0001172     VOLUME   412447.766 3766670.145 100.85
   LOCATION L0001173     VOLUME   412433.844 3766671.619 100.89
   LOCATION L0001174     VOLUME   412419.922 3766673.093 100.91
   LOCATION L0001175     VOLUME   412406.000 3766674.567 100.85
   LOCATION L0001176     VOLUME   412392.077 3766676.041 100.81
   LOCATION L0001177     VOLUME   412378.155 3766677.515 100.78
   LOCATION L0001178     VOLUME   412364.233 3766678.989 100.72
   LOCATION L0001179     VOLUME   412350.311 3766680.463 100.62
   LOCATION L0001180     VOLUME   412336.389 3766681.937 100.52
   LOCATION L0001181     VOLUME   412322.467 3766683.412 100.40
** End of LINE VOLUME Source ID = SLINE3
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Echelon 50%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 5.131E-07
** Vertical Dimension = 6.99
** SZINIT = 3.25
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** Nodes = 3
** 413713.389, 3766398.220, 107.43, 3.49, 4.00
** 413725.598, 3766540.002, 107.47, 3.49, 4.00
** 413726.188, 3766550.438, 107.45, 3.49, 4.00
** ------------------------------------------------------------------------
   LOCATION L0001182     VOLUME   413713.757 3766402.499 107.38
   LOCATION L0001183     VOLUME   413714.494 3766411.057 107.35
   LOCATION L0001184     VOLUME   413715.231 3766419.616 107.31
   LOCATION L0001185     VOLUME   413715.968 3766428.174 107.25
   LOCATION L0001186     VOLUME   413716.705 3766436.732 107.19
   LOCATION L0001187     VOLUME   413717.442 3766445.291 107.14
   LOCATION L0001188     VOLUME   413718.179 3766453.849 107.18
   LOCATION L0001189     VOLUME   413718.916 3766462.407 107.24
   LOCATION L0001190     VOLUME   413719.653 3766470.966 107.29
   LOCATION L0001191     VOLUME   413720.390 3766479.524 107.32
   LOCATION L0001192     VOLUME   413721.127 3766488.082 107.27
   LOCATION L0001193     VOLUME   413721.864 3766496.641 107.24
   LOCATION L0001194     VOLUME   413722.601 3766505.199 107.20
   LOCATION L0001195     VOLUME   413723.338 3766513.757 107.23
   LOCATION L0001196     VOLUME   413724.075 3766522.316 107.28
   LOCATION L0001197     VOLUME   413724.812 3766530.874 107.33
   LOCATION L0001198     VOLUME   413725.549 3766539.432 107.38
   LOCATION L0001199     VOLUME   413726.051 3766548.007 107.39
** End of LINE VOLUME Source ID = SLINE4
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC Amar E 50%
** PREFIX
** Length of Side = 14.00
** Configuration = Adjacent
** Emission Rate = 6.767E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 29
** 413726.188, 3766560.678, 107.42, 3.49, 6.51
** 413804.562, 3766560.087, 109.12, 3.49, 6.51
** 413848.475, 3766559.890, 110.07, 3.49, 6.51
** 413885.693, 3766557.527, 110.76, 3.49, 6.51
** 413952.251, 3766550.438, 112.12, 3.49, 6.51
** 414051.302, 3766541.774, 112.99, 3.49, 6.51
** 414170.438, 3766530.549, 113.78, 3.49, 6.51
** 414278.152, 3766521.097, 113.08, 3.49, 6.51
** 414358.298, 3766514.205, 113.49, 3.49, 6.51
** 414438.838, 3766506.722, 114.01, 3.49, 6.51
** 414568.411, 3766494.316, 115.69, 3.49, 6.51
** 414731.854, 3766480.138, 118.11, 3.49, 6.51
** 414797.034, 3766474.034, 118.43, 3.49, 6.51
** 414956.341, 3766459.856, 121.23, 3.49, 6.51
** 415005.571, 3766455.917, 122.08, 3.49, 6.51
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** 415066.222, 3766448.237, 122.83, 3.49, 6.51
** 415117.618, 3766436.619, 124.11, 3.49, 6.51
** 415165.075, 3766418.503, 126.26, 3.49, 6.51
** 415231.437, 3766385.814, 129.55, 3.49, 6.51
** 415256.249, 3766364.744, 130.15, 3.49, 6.51
** 415289.922, 3766338.160, 131.49, 3.49, 6.51
** 415340.530, 3766287.551, 134.06, 3.49, 6.51
** 415364.161, 3766255.060, 135.75, 3.49, 6.51
** 415407.680, 3766179.837, 137.69, 3.49, 6.51
** 415424.024, 3766154.040, 137.45, 3.49, 6.51
** 415442.140, 3766123.518, 137.52, 3.49, 6.51
** 415484.281, 3766072.713, 136.83, 3.49, 6.51
** 415510.274, 3766046.719, 136.42, 3.49, 6.51
** 415547.492, 3766014.031, 136.52, 3.49, 6.51
** ---------------------------------------------------------------------
   LOCATION L0001200     VOLUME   413733.188 3766560.625 107.57
   LOCATION L0001201     VOLUME   413747.188 3766560.520 107.94
   LOCATION L0001202     VOLUME   413761.187 3766560.414 108.23
   LOCATION L0001203     VOLUME   413775.187 3766560.309 108.44
   LOCATION L0001204     VOLUME   413789.187 3766560.203 108.74
   LOCATION L0001205     VOLUME   413803.186 3766560.098 109.09
   LOCATION L0001206     VOLUME   413817.186 3766560.031 109.46
   LOCATION L0001207     VOLUME   413831.186 3766559.968 109.82
   LOCATION L0001208     VOLUME   413845.186 3766559.905 110.02
   LOCATION L0001209     VOLUME   413859.164 3766559.212 110.23
   LOCATION L0001210     VOLUME   413873.136 3766558.325 110.54
   LOCATION L0001211     VOLUME   413887.103 3766557.377 110.86
   LOCATION L0001212     VOLUME   413901.024 3766555.894 111.18
   LOCATION L0001213     VOLUME   413914.945 3766554.412 111.45
   LOCATION L0001214     VOLUME   413928.867 3766552.929 111.66
   LOCATION L0001215     VOLUME   413942.788 3766551.446 111.89
   LOCATION L0001216     VOLUME   413956.717 3766550.048 112.12
   LOCATION L0001217     VOLUME   413970.664 3766548.828 112.32
   LOCATION L0001218     VOLUME   413984.611 3766547.608 112.51
   LOCATION L0001219     VOLUME   413998.557 3766546.388 112.62
   LOCATION L0001220     VOLUME   414012.504 3766545.168 112.73
   LOCATION L0001221     VOLUME   414026.451 3766543.948 112.88
   LOCATION L0001222     VOLUME   414040.398 3766542.728 113.02
   LOCATION L0001223     VOLUME   414054.343 3766541.487 113.13
   LOCATION L0001224     VOLUME   414068.281 3766540.174 113.22
   LOCATION L0001225     VOLUME   414082.219 3766538.861 113.31
   LOCATION L0001226     VOLUME   414096.157 3766537.548 113.41
   LOCATION L0001227     VOLUME   414110.096 3766536.235 113.52
   LOCATION L0001228     VOLUME   414124.034 3766534.921 113.59
   LOCATION L0001229     VOLUME   414137.972 3766533.608 113.65
   LOCATION L0001230     VOLUME   414151.910 3766532.295 113.72
   LOCATION L0001231     VOLUME   414165.849 3766530.982 113.78
   LOCATION L0001232     VOLUME   414179.792 3766529.729 113.75
   LOCATION L0001233     VOLUME   414193.739 3766528.505 113.71
   LOCATION L0001234     VOLUME   414207.685 3766527.281 113.65
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LOCATION L0001235     VOLUME   414221.632 3766526.057 113.54
LOCATION L0001236     VOLUME   414235.578 3766524.833 113.35
LOCATION L0001237     VOLUME   414249.525 3766523.609 113.24
LOCATION L0001238     VOLUME   414263.471 3766522.386 113.21
LOCATION L0001239     VOLUME   414277.417 3766521.162 113.15
LOCATION L0001240     VOLUME   414291.366 3766519.961 113.07
LOCATION L0001241     VOLUME   414305.314 3766518.762 113.15
LOCATION L0001242     VOLUME   414319.263 3766517.562 113.25
LOCATION L0001243     VOLUME   414333.211 3766516.363 113.51
LOCATION L0001244     VOLUME   414347.160 3766515.163 113.67
LOCATION L0001245     VOLUME   414361.107 3766513.944 113.63
LOCATION L0001246     VOLUME   414375.047 3766512.649 113.63
LOCATION L0001247     VOLUME   414388.987 3766511.354 113.70
LOCATION L0001248     VOLUME   414402.926 3766510.059 113.80
LOCATION L0001249     VOLUME   414416.866 3766508.764 113.91
LOCATION L0001250     VOLUME   414430.806 3766507.468 113.97
LOCATION L0001251     VOLUME   414444.745 3766506.157 114.05
LOCATION L0001252     VOLUME   414458.681 3766504.822 114.26
LOCATION L0001253     VOLUME   414472.617 3766503.488 114.44
LOCATION L0001254     VOLUME   414486.554 3766502.154 114.56
LOCATION L0001255     VOLUME   414500.490 3766500.819 114.72
LOCATION L0001256     VOLUME   414514.426 3766499.485 114.91
LOCATION L0001257     VOLUME   414528.362 3766498.151 115.10
LOCATION L0001258     VOLUME   414542.299 3766496.816 115.28
LOCATION L0001259     VOLUME   414556.235 3766495.482 115.44
LOCATION L0001260     VOLUME   414570.173 3766494.163 115.59
LOCATION L0001261     VOLUME   414584.120 3766492.954 115.79
LOCATION L0001262     VOLUME   414598.068 3766491.744 116.04
LOCATION L0001263     VOLUME   414612.016 3766490.534 116.22
LOCATION L0001264     VOLUME   414625.963 3766489.324 116.40
LOCATION L0001265     VOLUME   414639.911 3766488.114 116.49
LOCATION L0001266     VOLUME   414653.858 3766486.904 116.60
LOCATION L0001267     VOLUME   414667.806 3766485.694 116.75
LOCATION L0001268     VOLUME   414681.754 3766484.484 116.93
LOCATION L0001269     VOLUME   414695.701 3766483.274 117.18
LOCATION L0001270     VOLUME   414709.649 3766482.064 117.56
LOCATION L0001271     VOLUME   414723.596 3766480.854 117.99
LOCATION L0001272     VOLUME   414737.541 3766479.606 118.19
LOCATION L0001273     VOLUME   414751.480 3766478.300 118.29
LOCATION L0001274     VOLUME   414765.419 3766476.995 118.43
LOCATION L0001275     VOLUME   414779.358 3766475.689 118.60
LOCATION L0001276     VOLUME   414793.297 3766474.384 118.74
LOCATION L0001277     VOLUME   414807.240 3766473.125 118.91
LOCATION L0001278     VOLUME   414821.185 3766471.884 119.12
LOCATION L0001279     VOLUME   414835.130 3766470.643 119.32
LOCATION L0001280     VOLUME   414849.075 3766469.402 119.52
LOCATION L0001281     VOLUME   414863.019 3766468.161 119.73
LOCATION L0001282     VOLUME   414876.964 3766466.920 119.96
LOCATION L0001283     VOLUME   414890.909 3766465.679 120.20
LOCATION L0001284     VOLUME   414904.854 3766464.438 120.45
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LOCATION L0001285     VOLUME   414918.799 3766463.197 120.68
LOCATION L0001286     VOLUME   414932.744 3766461.956 120.90
LOCATION L0001287     VOLUME   414946.689 3766460.715 121.13
LOCATION L0001288     VOLUME   414960.637 3766459.512 121.36
LOCATION L0001289     VOLUME   414974.592 3766458.395 121.57
LOCATION L0001290     VOLUME   414988.548 3766457.279 121.80
LOCATION L0001291     VOLUME   415002.503 3766456.163 122.08
LOCATION L0001292     VOLUME   415016.407 3766454.545 122.37
LOCATION L0001293     VOLUME   415030.296 3766452.786 122.64
LOCATION L0001294     VOLUME   415044.185 3766451.028 122.84
LOCATION L0001295     VOLUME   415058.074 3766449.269 122.94
LOCATION L0001296     VOLUME   415071.867 3766446.961 123.14
LOCATION L0001297     VOLUME   415085.522 3766443.874 123.31
LOCATION L0001298     VOLUME   415099.177 3766440.788 123.74
LOCATION L0001299     VOLUME   415112.833 3766437.701 124.21
LOCATION L0001300     VOLUME   415126.114 3766433.376 124.67
LOCATION L0001301     VOLUME   415139.194 3766428.383 125.28
LOCATION L0001302     VOLUME   415152.273 3766423.390 125.83
LOCATION L0001303     VOLUME   415165.341 3766418.372 126.39
LOCATION L0001304     VOLUME   415177.900 3766412.185 127.00
LOCATION L0001305     VOLUME   415190.459 3766405.999 127.27
LOCATION L0001306     VOLUME   415203.018 3766399.813 127.69
LOCATION L0001307     VOLUME   415215.577 3766393.626 128.35
LOCATION L0001308     VOLUME   415228.136 3766387.440 129.01
LOCATION L0001309     VOLUME   415239.304 3766379.133 129.29
LOCATION L0001310     VOLUME   415249.975 3766370.071 129.57
LOCATION L0001311     VOLUME   415260.777 3766361.169 130.20
LOCATION L0001312     VOLUME   415271.766 3766352.494 130.72
LOCATION L0001313     VOLUME   415282.754 3766343.819 131.17
LOCATION L0001314     VOLUME   415293.364 3766334.718 131.62
LOCATION L0001315     VOLUME   415303.263 3766324.818 132.07
LOCATION L0001316     VOLUME   415313.163 3766314.919 132.54
LOCATION L0001317     VOLUME   415323.062 3766305.019 133.06
LOCATION L0001318     VOLUME   415332.962 3766295.120 133.58
LOCATION L0001319     VOLUME   415342.469 3766284.885 134.22
LOCATION L0001320     VOLUME   415350.704 3766273.563 134.52
LOCATION L0001321     VOLUME   415358.938 3766262.241 134.96
LOCATION L0001322     VOLUME   415366.725 3766250.627 135.59
LOCATION L0001323     VOLUME   415373.736 3766238.509 136.03
LOCATION L0001324     VOLUME   415380.746 3766226.391 136.27
LOCATION L0001325     VOLUME   415387.757 3766214.273 136.51
LOCATION L0001326     VOLUME   415394.768 3766202.155 137.25
LOCATION L0001327     VOLUME   415401.779 3766190.037 137.45
LOCATION L0001328     VOLUME   415408.866 3766177.965 137.12
LOCATION L0001329     VOLUME   415416.358 3766166.139 137.36
LOCATION L0001330     VOLUME   415423.851 3766154.313 137.60
LOCATION L0001331     VOLUME   415431.005 3766142.278 137.33
LOCATION L0001332     VOLUME   415438.151 3766130.239 137.36
LOCATION L0001333     VOLUME   415446.088 3766118.758 137.49
LOCATION L0001334     VOLUME   415455.026 3766107.983 137.39
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   LOCATION L0001335     VOLUME   415463.964 3766097.207 137.31
   LOCATION L0001336     VOLUME   415472.902 3766086.432 137.21
   LOCATION L0001337     VOLUME   415481.840 3766075.656 137.07
   LOCATION L0001338     VOLUME   415491.477 3766065.517 136.90
   LOCATION L0001339     VOLUME   415501.376 3766055.618 136.65
   LOCATION L0001340     VOLUME   415511.338 3766045.785 136.48
   LOCATION L0001341     VOLUME   415521.857 3766036.546 136.51
   LOCATION L0001342     VOLUME   415532.376 3766027.308 136.49
   LOCATION L0001343     VOLUME   415542.895 3766018.069 136.47
** End of LINE VOLUME Source ID = SLINE5
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0001040     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001041     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001042     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001043     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001044     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001045     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001046     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001047     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001048     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001049     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001050     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001051     0.000001007      3.49      4.46      3.25
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0001052     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001053     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001054     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001055     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001056     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001057     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001058     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001059     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001060     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001061     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001062     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001063     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001064     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001065     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001066     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001067     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001068     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001069     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001070     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001071     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001072     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001073     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001074     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001075     0.0000001425      3.49      4.00      3.25
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   SRCPARAM L0001076     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001077     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001078     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001079     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001080     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001081     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001082     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001083     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001084     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001085     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001086     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001087     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001088     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001089     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001090     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001091     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001092     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001093     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001094     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001095     0.0000001425      3.49      4.00      3.25
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** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0001096     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001097     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001098     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001099     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001100     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001101     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001102     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001103     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001104     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001105     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001106     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001107     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001108     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001109     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001110     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001111     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001112     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001113     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001114     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001115     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001116     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001117     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001118     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001119     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001120     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001121     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001122     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001123     0.00000004723      3.49      6.51      3.25
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SRCPARAM L0001124     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001125     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001126     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001127     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001128     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001129     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001130     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001131     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001132     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001133     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001134     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001135     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001136     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001137     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001138     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001139     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001140     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001141     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001142     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001143     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001144     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001145     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001146     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001147     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001148     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001149     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001150     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001151     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001152     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001153     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001154     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001155     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001156     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001157     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001158     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001159     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001160     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001161     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001162     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001163     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001164     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001165     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001166     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001167     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001168     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001169     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001170     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001171     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001172     0.00000004723       3.49       6.51       3.25
SRCPARAM L0001173     0.00000004723       3.49       6.51       3.25
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   SRCPARAM L0001174     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001175     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001176     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001177     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001178     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001179     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001180     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001181     0.00000004723      3.49      6.51      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0001182     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001183     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001184     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001185     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001186     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001187     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001188     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001189     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001190     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001191     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001192     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001193     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001194     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001195     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001196     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001197     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001198     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001199     0.00000002851      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0001200     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001201     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001202     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001203     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001204     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001205     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001206     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001207     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001208     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001209     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001210     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001211     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001212     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001213     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001214     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001215     0.00000004699      3.49      6.51      3.25
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   SRCPARAM L0001217     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001218     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001219     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001226     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001227     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001228     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001229     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001230     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001231     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001232     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001236     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001241     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001247     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001253     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001257     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001258     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001260     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001261     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001263     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001265     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001267     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001268     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001269     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001286     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001287     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001288     0.00000004699       3.49       6.51       3.25
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SRCPARAM L0001291     0.00000004699       3.49       6.51       3.25
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SRCPARAM L0001293     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001294     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001295     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001296     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001297     0.00000004699       3.49       6.51       3.25
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SRCPARAM L0001299     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001300     0.00000004699       3.49       6.51       3.25
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SRCPARAM L0001302     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001303     0.00000004699       3.49       6.51       3.25
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SRCPARAM L0001305     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001306     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001307     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001308     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001309     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001310     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001311     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001312     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001313     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001314     0.00000004699       3.49       6.51       3.25
SRCPARAM L0001315     0.00000004699       3.49       6.51       3.25
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SRCPARAM L0001317     0.00000004699       3.49       6.51       3.25
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   SRCPARAM L0001334     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001335     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001336     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001337     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001338     0.00000004699      3.49      6.51      3.25
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   SRCPARAM L0001340     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001341     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001342     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001343     0.00000004699      3.49      6.51      3.25
** ------------------------------------------------------------------
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   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
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**
**
RE STARTING
   INCLUDED "15271-02 OPS HRA.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE PICO_V9_ADJU\PICO_v9.SFC
   PROFFILE PICO_V9_ADJU\PICO_v9.PFL
   SURFDATA 3166 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 58.0 METERS
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ME FINISHED
**
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** AERMOD Output Pathway
****************************************
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OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "15271-02 OPS HRA.AD\PE00GALL.PLT" 31
   SUMMFILE "15271-02 OPS HRA.sum"
OU FINISHED
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** Project Parameters
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** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
** Lakes Environmental AERMOD MPI
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.2.0
** Lakes Environmental Software Inc.
** Date: 8/24/2023
** File: C:\Users\Michael Tirohn\Desktop\HRAs\15271 Amar Kaplan\15271-02 OPS
HRA\15271-02 OPS HRA.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
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**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\15271-02 OPS HRA\15271-02 OPS HRA.isc
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID DPM
   RUNORNOT RUN
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   ERRORFIL "15271-02 OPS HRA.err"
CO FINISHED
**
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** 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 On-Site Idling
** PREFIX
** Length of Side = 9.59
** Configuration = Adjacent
** Emission Rate = 0.00001209
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 413524.497, 3766413.240, 105.29, 3.49, 4.46
** 413639.894, 3766403.296, 106.13, 3.49, 4.46
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   LOCATION L0001040     VOLUME   413529.274 3766412.829 105.42
   LOCATION L0001041     VOLUME   413538.829 3766412.005 105.51
   LOCATION L0001042     VOLUME   413548.383 3766411.182 105.59
   LOCATION L0001043     VOLUME   413557.938 3766410.358 105.67
   LOCATION L0001044     VOLUME   413567.492 3766409.535 105.76
   LOCATION L0001045     VOLUME   413577.047 3766408.712 105.84
   LOCATION L0001046     VOLUME   413586.601 3766407.888 105.92
   LOCATION L0001047     VOLUME   413596.156 3766407.065 106.00
   LOCATION L0001048     VOLUME   413605.711 3766406.241 106.02
   LOCATION L0001049     VOLUME   413615.265 3766405.418 106.02
   LOCATION L0001050     VOLUME   413624.820 3766404.595 106.01
   LOCATION L0001051     VOLUME   413634.374 3766403.771 106.09
** End of LINE VOLUME Source ID = SLINE1
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Travel
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 6.269E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 16
** 413516.314, 3766557.841, 105.66, 3.49, 4.00
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** 413512.398, 3766505.627, 105.97, 3.49, 4.00
** 413507.176, 3766447.407, 105.70, 3.49, 4.00
** 413503.260, 3766401.458, 105.57, 3.49, 4.00
** 413504.043, 3766391.537, 105.73, 3.49, 4.00
** 413537.461, 3766388.143, 105.81, 3.49, 4.00
** 413612.650, 3766383.183, 106.32, 3.49, 4.00
** 413645.806, 3766381.617, 106.60, 3.49, 4.00
** 413654.422, 3766395.453, 106.60, 3.49, 4.00
** 413660.688, 3766400.936, 106.24, 3.49, 4.00
** 413667.214, 3766401.719, 106.34, 3.49, 4.00
** 413675.569, 3766399.108, 106.91, 3.49, 4.00
** 413682.618, 3766399.892, 106.78, 3.49, 4.00
** 413687.056, 3766401.458, 106.77, 3.49, 4.00
** 413692.016, 3766401.719, 106.81, 3.49, 4.00
** 413702.720, 3766398.586, 107.36, 3.49, 4.00
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   LOCATION L0001053     VOLUME   413515.350 3766544.992 105.98
   LOCATION L0001054     VOLUME   413514.708 3766536.426 106.06
   LOCATION L0001055     VOLUME   413514.065 3766527.860 106.02
   LOCATION L0001056     VOLUME   413513.423 3766519.294 105.97
   LOCATION L0001057     VOLUME   413512.780 3766510.729 105.93
   LOCATION L0001058     VOLUME   413512.088 3766502.167 105.92
   LOCATION L0001059     VOLUME   413511.320 3766493.611 105.90
   LOCATION L0001060     VOLUME   413510.553 3766485.055 105.89
   LOCATION L0001061     VOLUME   413509.786 3766476.500 105.87
   LOCATION L0001062     VOLUME   413509.018 3766467.944 105.84
   LOCATION L0001063     VOLUME   413508.251 3766459.388 105.80
   LOCATION L0001064     VOLUME   413507.484 3766450.833 105.77
   LOCATION L0001065     VOLUME   413506.739 3766442.275 105.69
   LOCATION L0001066     VOLUME   413506.010 3766433.716 105.58
   LOCATION L0001067     VOLUME   413505.280 3766425.157 105.49
   LOCATION L0001068     VOLUME   413504.551 3766416.598 105.43
   LOCATION L0001069     VOLUME   413503.821 3766408.039 105.53
   LOCATION L0001070     VOLUME   413503.416 3766399.479 105.62
   LOCATION L0001071     VOLUME   413504.664 3766391.474 105.72
   LOCATION L0001072     VOLUME   413513.210 3766390.606 105.82
   LOCATION L0001073     VOLUME   413521.756 3766389.738 105.92
   LOCATION L0001074     VOLUME   413530.302 3766388.870 105.85
   LOCATION L0001075     VOLUME   413538.852 3766388.052 105.78
   LOCATION L0001076     VOLUME   413547.423 3766387.486 105.69
   LOCATION L0001077     VOLUME   413555.995 3766386.921 105.87
   LOCATION L0001078     VOLUME   413564.566 3766386.355 106.05
   LOCATION L0001079     VOLUME   413573.137 3766385.790 106.23
   LOCATION L0001080     VOLUME   413581.709 3766385.224 106.31
   LOCATION L0001081     VOLUME   413590.280 3766384.659 106.39
   LOCATION L0001082     VOLUME   413598.851 3766384.093 106.46
   LOCATION L0001083     VOLUME   413607.423 3766383.528 106.38
   LOCATION L0001084     VOLUME   413615.998 3766383.025 106.29
   LOCATION L0001085     VOLUME   413624.578 3766382.619 106.22
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   LOCATION L0001086     VOLUME   413633.159 3766382.214 106.35
   LOCATION L0001087     VOLUME   413641.739 3766381.809 106.48
   LOCATION L0001088     VOLUME   413648.194 3766385.452 106.57
   LOCATION L0001089     VOLUME   413652.735 3766392.744 106.50
   LOCATION L0001090     VOLUME   413658.484 3766399.008 106.49
   LOCATION L0001091     VOLUME   413666.310 3766401.611 106.59
   LOCATION L0001092     VOLUME   413674.544 3766399.429 106.81
   LOCATION L0001093     VOLUME   413683.017 3766400.033 106.92
   LOCATION L0001094     VOLUME   413691.357 3766401.685 107.00
   LOCATION L0001095     VOLUME   413699.627 3766399.492 107.14
** End of LINE VOLUME Source ID = SLINE2
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC Amar W 50%
** PREFIX
** Length of Side = 14.00
** Configuration = Adjacent
** Emission Rate = 4.062E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 3
** 413514.421, 3766573.965, 105.48, 3.49, 6.51
** 412575.065, 3766656.666, 101.17, 3.49, 6.51
** 412309.798, 3766684.753, 100.31, 3.49, 6.51
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   LOCATION L0001097     VOLUME   413493.502 3766575.807 105.25
   LOCATION L0001098     VOLUME   413479.556 3766577.035 105.13
   LOCATION L0001099     VOLUME   413465.610 3766578.262 105.00
   LOCATION L0001100     VOLUME   413451.664 3766579.490 104.88
   LOCATION L0001101     VOLUME   413437.718 3766580.718 104.73
   LOCATION L0001102     VOLUME   413423.772 3766581.946 104.56
   LOCATION L0001103     VOLUME   413409.826 3766583.174 104.51
   LOCATION L0001104     VOLUME   413395.880 3766584.401 104.49
   LOCATION L0001105     VOLUME   413381.934 3766585.629 104.56
   LOCATION L0001106     VOLUME   413367.987 3766586.857 104.59
   LOCATION L0001107     VOLUME   413354.041 3766588.085 104.39
   LOCATION L0001108     VOLUME   413340.095 3766589.313 104.25
   LOCATION L0001109     VOLUME   413326.149 3766590.540 104.21
   LOCATION L0001110     VOLUME   413312.203 3766591.768 104.18
   LOCATION L0001111     VOLUME   413298.257 3766592.996 104.16
   LOCATION L0001112     VOLUME   413284.311 3766594.224 104.11
   LOCATION L0001113     VOLUME   413270.365 3766595.452 104.06
   LOCATION L0001114     VOLUME   413256.419 3766596.680 104.04
   LOCATION L0001115     VOLUME   413242.473 3766597.907 104.01
   LOCATION L0001116     VOLUME   413228.527 3766599.135 103.95
   LOCATION L0001117     VOLUME   413214.581 3766600.363 103.90
   LOCATION L0001118     VOLUME   413200.635 3766601.591 103.86
   LOCATION L0001119     VOLUME   413186.689 3766602.819 103.81
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LOCATION L0001120     VOLUME   413172.743 3766604.046 103.76
LOCATION L0001121     VOLUME   413158.797 3766605.274 103.73
LOCATION L0001122     VOLUME   413144.851 3766606.502 103.70
LOCATION L0001123     VOLUME   413130.904 3766607.730 103.66
LOCATION L0001124     VOLUME   413116.958 3766608.958 103.60
LOCATION L0001125     VOLUME   413103.012 3766610.185 103.54
LOCATION L0001126     VOLUME   413089.066 3766611.413 103.48
LOCATION L0001127     VOLUME   413075.120 3766612.641 103.40
LOCATION L0001128     VOLUME   413061.174 3766613.869 103.33
LOCATION L0001129     VOLUME   413047.228 3766615.097 103.27
LOCATION L0001130     VOLUME   413033.282 3766616.324 103.22
LOCATION L0001131     VOLUME   413019.336 3766617.552 103.22
LOCATION L0001132     VOLUME   413005.390 3766618.780 103.22
LOCATION L0001133     VOLUME   412991.444 3766620.008 103.18
LOCATION L0001134     VOLUME   412977.498 3766621.236 103.14
LOCATION L0001135     VOLUME   412963.552 3766622.464 103.08
LOCATION L0001136     VOLUME   412949.606 3766623.691 103.02
LOCATION L0001137     VOLUME   412935.660 3766624.919 102.95
LOCATION L0001138     VOLUME   412921.714 3766626.147 102.86
LOCATION L0001139     VOLUME   412907.768 3766627.375 102.78
LOCATION L0001140     VOLUME   412893.822 3766628.603 102.73
LOCATION L0001141     VOLUME   412879.875 3766629.830 102.67
LOCATION L0001142     VOLUME   412865.929 3766631.058 102.58
LOCATION L0001143     VOLUME   412851.983 3766632.286 102.52
LOCATION L0001144     VOLUME   412838.037 3766633.514 102.48
LOCATION L0001145     VOLUME   412824.091 3766634.742 102.43
LOCATION L0001146     VOLUME   412810.145 3766635.969 102.37
LOCATION L0001147     VOLUME   412796.199 3766637.197 102.29
LOCATION L0001148     VOLUME   412782.253 3766638.425 102.22
LOCATION L0001149     VOLUME   412768.307 3766639.653 102.17
LOCATION L0001150     VOLUME   412754.361 3766640.881 102.12
LOCATION L0001151     VOLUME   412740.415 3766642.108 102.01
LOCATION L0001152     VOLUME   412726.469 3766643.336 101.91
LOCATION L0001153     VOLUME   412712.523 3766644.564 101.82
LOCATION L0001154     VOLUME   412698.577 3766645.792 101.72
LOCATION L0001155     VOLUME   412684.631 3766647.020 101.57
LOCATION L0001156     VOLUME   412670.685 3766648.247 101.47
LOCATION L0001157     VOLUME   412656.739 3766649.475 101.42
LOCATION L0001158     VOLUME   412642.793 3766650.703 101.36
LOCATION L0001159     VOLUME   412628.846 3766651.931 101.31
LOCATION L0001160     VOLUME   412614.900 3766653.159 101.27
LOCATION L0001161     VOLUME   412600.954 3766654.387 101.23
LOCATION L0001162     VOLUME   412587.008 3766655.614 101.18
LOCATION L0001163     VOLUME   412573.066 3766656.878 101.11
LOCATION L0001164     VOLUME   412559.143 3766658.352 101.02
LOCATION L0001165     VOLUME   412545.221 3766659.826 100.94
LOCATION L0001166     VOLUME   412531.299 3766661.300 100.92
LOCATION L0001167     VOLUME   412517.377 3766662.774 100.90
LOCATION L0001168     VOLUME   412503.455 3766664.248 100.87
LOCATION L0001169     VOLUME   412489.533 3766665.722 100.86
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   LOCATION L0001170     VOLUME   412475.610 3766667.196 100.85
   LOCATION L0001171     VOLUME   412461.688 3766668.670 100.85
   LOCATION L0001172     VOLUME   412447.766 3766670.145 100.85
   LOCATION L0001173     VOLUME   412433.844 3766671.619 100.89
   LOCATION L0001174     VOLUME   412419.922 3766673.093 100.91
   LOCATION L0001175     VOLUME   412406.000 3766674.567 100.85
   LOCATION L0001176     VOLUME   412392.077 3766676.041 100.81
   LOCATION L0001177     VOLUME   412378.155 3766677.515 100.78
   LOCATION L0001178     VOLUME   412364.233 3766678.989 100.72
   LOCATION L0001179     VOLUME   412350.311 3766680.463 100.62
   LOCATION L0001180     VOLUME   412336.389 3766681.937 100.52
   LOCATION L0001181     VOLUME   412322.467 3766683.412 100.40
** End of LINE VOLUME Source ID = SLINE3
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Echelon 50%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 5.131E-07
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 3
** 413713.389, 3766398.220, 107.43, 3.49, 4.00
** 413725.598, 3766540.002, 107.47, 3.49, 4.00
** 413726.188, 3766550.438, 107.45, 3.49, 4.00
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   LOCATION L0001182     VOLUME   413713.757 3766402.499 107.38
   LOCATION L0001183     VOLUME   413714.494 3766411.057 107.35
   LOCATION L0001184     VOLUME   413715.231 3766419.616 107.31
   LOCATION L0001185     VOLUME   413715.968 3766428.174 107.25
   LOCATION L0001186     VOLUME   413716.705 3766436.732 107.19
   LOCATION L0001187     VOLUME   413717.442 3766445.291 107.14
   LOCATION L0001188     VOLUME   413718.179 3766453.849 107.18
   LOCATION L0001189     VOLUME   413718.916 3766462.407 107.24
   LOCATION L0001190     VOLUME   413719.653 3766470.966 107.29
   LOCATION L0001191     VOLUME   413720.390 3766479.524 107.32
   LOCATION L0001192     VOLUME   413721.127 3766488.082 107.27
   LOCATION L0001193     VOLUME   413721.864 3766496.641 107.24
   LOCATION L0001194     VOLUME   413722.601 3766505.199 107.20
   LOCATION L0001195     VOLUME   413723.338 3766513.757 107.23
   LOCATION L0001196     VOLUME   413724.075 3766522.316 107.28
   LOCATION L0001197     VOLUME   413724.812 3766530.874 107.33
   LOCATION L0001198     VOLUME   413725.549 3766539.432 107.38
   LOCATION L0001199     VOLUME   413726.051 3766548.007 107.39
** End of LINE VOLUME Source ID = SLINE4
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
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** DESCRSRC Amar E 50%
** PREFIX
** Length of Side = 14.00
** Configuration = Adjacent
** Emission Rate = 6.767E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 29
** 413726.188, 3766560.678, 107.42, 3.49, 6.51
** 413804.562, 3766560.087, 109.12, 3.49, 6.51
** 413848.475, 3766559.890, 110.07, 3.49, 6.51
** 413885.693, 3766557.527, 110.76, 3.49, 6.51
** 413952.251, 3766550.438, 112.12, 3.49, 6.51
** 414051.302, 3766541.774, 112.99, 3.49, 6.51
** 414170.438, 3766530.549, 113.78, 3.49, 6.51
** 414278.152, 3766521.097, 113.08, 3.49, 6.51
** 414358.298, 3766514.205, 113.49, 3.49, 6.51
** 414438.838, 3766506.722, 114.01, 3.49, 6.51
** 414568.411, 3766494.316, 115.69, 3.49, 6.51
** 414731.854, 3766480.138, 118.11, 3.49, 6.51
** 414797.034, 3766474.034, 118.43, 3.49, 6.51
** 414956.341, 3766459.856, 121.23, 3.49, 6.51
** 415005.571, 3766455.917, 122.08, 3.49, 6.51
** 415066.222, 3766448.237, 122.83, 3.49, 6.51
** 415117.618, 3766436.619, 124.11, 3.49, 6.51
** 415165.075, 3766418.503, 126.26, 3.49, 6.51
** 415231.437, 3766385.814, 129.55, 3.49, 6.51
** 415256.249, 3766364.744, 130.15, 3.49, 6.51
** 415289.922, 3766338.160, 131.49, 3.49, 6.51
** 415340.530, 3766287.551, 134.06, 3.49, 6.51
** 415364.161, 3766255.060, 135.75, 3.49, 6.51
** 415407.680, 3766179.837, 137.69, 3.49, 6.51
** 415424.024, 3766154.040, 137.45, 3.49, 6.51
** 415442.140, 3766123.518, 137.52, 3.49, 6.51
** 415484.281, 3766072.713, 136.83, 3.49, 6.51
** 415510.274, 3766046.719, 136.42, 3.49, 6.51
** 415547.492, 3766014.031, 136.52, 3.49, 6.51
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   LOCATION L0001201     VOLUME   413747.188 3766560.520 107.94
   LOCATION L0001202     VOLUME   413761.187 3766560.414 108.23
   LOCATION L0001203     VOLUME   413775.187 3766560.309 108.44
   LOCATION L0001204     VOLUME   413789.187 3766560.203 108.74
   LOCATION L0001205     VOLUME   413803.186 3766560.098 109.09
   LOCATION L0001206     VOLUME   413817.186 3766560.031 109.46
   LOCATION L0001207     VOLUME   413831.186 3766559.968 109.82
   LOCATION L0001208     VOLUME   413845.186 3766559.905 110.02
   LOCATION L0001209     VOLUME   413859.164 3766559.212 110.23
   LOCATION L0001210     VOLUME   413873.136 3766558.325 110.54
   LOCATION L0001211     VOLUME   413887.103 3766557.377 110.86
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LOCATION L0001213     VOLUME   413914.945 3766554.412 111.45
LOCATION L0001214     VOLUME   413928.867 3766552.929 111.66
LOCATION L0001215     VOLUME   413942.788 3766551.446 111.89
LOCATION L0001216     VOLUME   413956.717 3766550.048 112.12
LOCATION L0001217     VOLUME   413970.664 3766548.828 112.32
LOCATION L0001218     VOLUME   413984.611 3766547.608 112.51
LOCATION L0001219     VOLUME   413998.557 3766546.388 112.62
LOCATION L0001220     VOLUME   414012.504 3766545.168 112.73
LOCATION L0001221     VOLUME   414026.451 3766543.948 112.88
LOCATION L0001222     VOLUME   414040.398 3766542.728 113.02
LOCATION L0001223     VOLUME   414054.343 3766541.487 113.13
LOCATION L0001224     VOLUME   414068.281 3766540.174 113.22
LOCATION L0001225     VOLUME   414082.219 3766538.861 113.31
LOCATION L0001226     VOLUME   414096.157 3766537.548 113.41
LOCATION L0001227     VOLUME   414110.096 3766536.235 113.52
LOCATION L0001228     VOLUME   414124.034 3766534.921 113.59
LOCATION L0001229     VOLUME   414137.972 3766533.608 113.65
LOCATION L0001230     VOLUME   414151.910 3766532.295 113.72
LOCATION L0001231     VOLUME   414165.849 3766530.982 113.78
LOCATION L0001232     VOLUME   414179.792 3766529.729 113.75
LOCATION L0001233     VOLUME   414193.739 3766528.505 113.71
LOCATION L0001234     VOLUME   414207.685 3766527.281 113.65
LOCATION L0001235     VOLUME   414221.632 3766526.057 113.54
LOCATION L0001236     VOLUME   414235.578 3766524.833 113.35
LOCATION L0001237     VOLUME   414249.525 3766523.609 113.24
LOCATION L0001238     VOLUME   414263.471 3766522.386 113.21
LOCATION L0001239     VOLUME   414277.417 3766521.162 113.15
LOCATION L0001240     VOLUME   414291.366 3766519.961 113.07
LOCATION L0001241     VOLUME   414305.314 3766518.762 113.15
LOCATION L0001242     VOLUME   414319.263 3766517.562 113.25
LOCATION L0001243     VOLUME   414333.211 3766516.363 113.51
LOCATION L0001244     VOLUME   414347.160 3766515.163 113.67
LOCATION L0001245     VOLUME   414361.107 3766513.944 113.63
LOCATION L0001246     VOLUME   414375.047 3766512.649 113.63
LOCATION L0001247     VOLUME   414388.987 3766511.354 113.70
LOCATION L0001248     VOLUME   414402.926 3766510.059 113.80
LOCATION L0001249     VOLUME   414416.866 3766508.764 113.91
LOCATION L0001250     VOLUME   414430.806 3766507.468 113.97
LOCATION L0001251     VOLUME   414444.745 3766506.157 114.05
LOCATION L0001252     VOLUME   414458.681 3766504.822 114.26
LOCATION L0001253     VOLUME   414472.617 3766503.488 114.44
LOCATION L0001254     VOLUME   414486.554 3766502.154 114.56
LOCATION L0001255     VOLUME   414500.490 3766500.819 114.72
LOCATION L0001256     VOLUME   414514.426 3766499.485 114.91
LOCATION L0001257     VOLUME   414528.362 3766498.151 115.10
LOCATION L0001258     VOLUME   414542.299 3766496.816 115.28
LOCATION L0001259     VOLUME   414556.235 3766495.482 115.44
LOCATION L0001260     VOLUME   414570.173 3766494.163 115.59
LOCATION L0001261     VOLUME   414584.120 3766492.954 115.79
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LOCATION L0001262     VOLUME   414598.068 3766491.744 116.04
LOCATION L0001263     VOLUME   414612.016 3766490.534 116.22
LOCATION L0001264     VOLUME   414625.963 3766489.324 116.40
LOCATION L0001265     VOLUME   414639.911 3766488.114 116.49
LOCATION L0001266     VOLUME   414653.858 3766486.904 116.60
LOCATION L0001267     VOLUME   414667.806 3766485.694 116.75
LOCATION L0001268     VOLUME   414681.754 3766484.484 116.93
LOCATION L0001269     VOLUME   414695.701 3766483.274 117.18
LOCATION L0001270     VOLUME   414709.649 3766482.064 117.56
LOCATION L0001271     VOLUME   414723.596 3766480.854 117.99
LOCATION L0001272     VOLUME   414737.541 3766479.606 118.19
LOCATION L0001273     VOLUME   414751.480 3766478.300 118.29
LOCATION L0001274     VOLUME   414765.419 3766476.995 118.43
LOCATION L0001275     VOLUME   414779.358 3766475.689 118.60
LOCATION L0001276     VOLUME   414793.297 3766474.384 118.74
LOCATION L0001277     VOLUME   414807.240 3766473.125 118.91
LOCATION L0001278     VOLUME   414821.185 3766471.884 119.12
LOCATION L0001279     VOLUME   414835.130 3766470.643 119.32
LOCATION L0001280     VOLUME   414849.075 3766469.402 119.52
LOCATION L0001281     VOLUME   414863.019 3766468.161 119.73
LOCATION L0001282     VOLUME   414876.964 3766466.920 119.96
LOCATION L0001283     VOLUME   414890.909 3766465.679 120.20
LOCATION L0001284     VOLUME   414904.854 3766464.438 120.45
LOCATION L0001285     VOLUME   414918.799 3766463.197 120.68
LOCATION L0001286     VOLUME   414932.744 3766461.956 120.90
LOCATION L0001287     VOLUME   414946.689 3766460.715 121.13
LOCATION L0001288     VOLUME   414960.637 3766459.512 121.36
LOCATION L0001289     VOLUME   414974.592 3766458.395 121.57
LOCATION L0001290     VOLUME   414988.548 3766457.279 121.80
LOCATION L0001291     VOLUME   415002.503 3766456.163 122.08
LOCATION L0001292     VOLUME   415016.407 3766454.545 122.37
LOCATION L0001293     VOLUME   415030.296 3766452.786 122.64
LOCATION L0001294     VOLUME   415044.185 3766451.028 122.84
LOCATION L0001295     VOLUME   415058.074 3766449.269 122.94
LOCATION L0001296     VOLUME   415071.867 3766446.961 123.14
LOCATION L0001297     VOLUME   415085.522 3766443.874 123.31
LOCATION L0001298     VOLUME   415099.177 3766440.788 123.74
LOCATION L0001299     VOLUME   415112.833 3766437.701 124.21
LOCATION L0001300     VOLUME   415126.114 3766433.376 124.67
LOCATION L0001301     VOLUME   415139.194 3766428.383 125.28
LOCATION L0001302     VOLUME   415152.273 3766423.390 125.83
LOCATION L0001303     VOLUME   415165.341 3766418.372 126.39
LOCATION L0001304     VOLUME   415177.900 3766412.185 127.00
LOCATION L0001305     VOLUME   415190.459 3766405.999 127.27
LOCATION L0001306     VOLUME   415203.018 3766399.813 127.69
LOCATION L0001307     VOLUME   415215.577 3766393.626 128.35
LOCATION L0001308     VOLUME   415228.136 3766387.440 129.01
LOCATION L0001309     VOLUME   415239.304 3766379.133 129.29
LOCATION L0001310     VOLUME   415249.975 3766370.071 129.57
LOCATION L0001311     VOLUME   415260.777 3766361.169 130.20
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   LOCATION L0001312     VOLUME   415271.766 3766352.494 130.72
   LOCATION L0001313     VOLUME   415282.754 3766343.819 131.17
   LOCATION L0001314     VOLUME   415293.364 3766334.718 131.62
   LOCATION L0001315     VOLUME   415303.263 3766324.818 132.07
   LOCATION L0001316     VOLUME   415313.163 3766314.919 132.54
   LOCATION L0001317     VOLUME   415323.062 3766305.019 133.06
   LOCATION L0001318     VOLUME   415332.962 3766295.120 133.58
   LOCATION L0001319     VOLUME   415342.469 3766284.885 134.22
   LOCATION L0001320     VOLUME   415350.704 3766273.563 134.52
   LOCATION L0001321     VOLUME   415358.938 3766262.241 134.96
   LOCATION L0001322     VOLUME   415366.725 3766250.627 135.59
   LOCATION L0001323     VOLUME   415373.736 3766238.509 136.03
   LOCATION L0001324     VOLUME   415380.746 3766226.391 136.27
   LOCATION L0001325     VOLUME   415387.757 3766214.273 136.51
   LOCATION L0001326     VOLUME   415394.768 3766202.155 137.25
   LOCATION L0001327     VOLUME   415401.779 3766190.037 137.45
   LOCATION L0001328     VOLUME   415408.866 3766177.965 137.12
   LOCATION L0001329     VOLUME   415416.358 3766166.139 137.36
   LOCATION L0001330     VOLUME   415423.851 3766154.313 137.60
   LOCATION L0001331     VOLUME   415431.005 3766142.278 137.33
   LOCATION L0001332     VOLUME   415438.151 3766130.239 137.36
   LOCATION L0001333     VOLUME   415446.088 3766118.758 137.49
   LOCATION L0001334     VOLUME   415455.026 3766107.983 137.39
   LOCATION L0001335     VOLUME   415463.964 3766097.207 137.31
   LOCATION L0001336     VOLUME   415472.902 3766086.432 137.21
   LOCATION L0001337     VOLUME   415481.840 3766075.656 137.07
   LOCATION L0001338     VOLUME   415491.477 3766065.517 136.90
   LOCATION L0001339     VOLUME   415501.376 3766055.618 136.65
   LOCATION L0001340     VOLUME   415511.338 3766045.785 136.48
   LOCATION L0001341     VOLUME   415521.857 3766036.546 136.51
   LOCATION L0001342     VOLUME   415532.376 3766027.308 136.49
   LOCATION L0001343     VOLUME   415542.895 3766018.069 136.47
** End of LINE VOLUME Source ID = SLINE5
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0001040     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001041     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001042     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001043     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001044     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001045     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001046     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001047     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001048     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001049     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001050     0.000001007      3.49      4.46      3.25
   SRCPARAM L0001051     0.000001007      3.49      4.46      3.25
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** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0001052     0.0000001425      3.49      4.00      3.25
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   SRCPARAM L0001053     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001054     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001055     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001056     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001057     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001058     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001059     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001060     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001061     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001062     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001063     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001064     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001065     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001066     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001067     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001068     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001069     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001070     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001071     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001072     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001073     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001074     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001075     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001076     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001077     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001078     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001079     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001080     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001081     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001082     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001083     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001084     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001085     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001086     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001087     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001088     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001089     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001090     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001091     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001092     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001093     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001094     0.0000001425      3.49      4.00      3.25
   SRCPARAM L0001095     0.0000001425      3.49      4.00      3.25
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** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0001096     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001097     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001098     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001099     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001100     0.00000004723      3.49      6.51      3.25
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SRCPARAM L0001101     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001102     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001103     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001104     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001105     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001106     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001107     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001108     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001109     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001110     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001111     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001112     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001113     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001114     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001115     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001116     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001117     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001118     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001119     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001120     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001121     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001122     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001123     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001124     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001125     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001126     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001127     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001128     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001129     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001130     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001131     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001132     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001133     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001134     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001135     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001136     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001137     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001138     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001139     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001140     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001141     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001142     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001143     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001144     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001145     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001146     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001147     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001148     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001149     0.00000004723      3.49      6.51      3.25
SRCPARAM L0001150     0.00000004723      3.49      6.51      3.25
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   SRCPARAM L0001151     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001152     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001153     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001154     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001155     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001156     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001157     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001158     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001159     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001160     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001161     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001162     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001163     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001164     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001165     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001166     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001167     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001168     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001169     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001170     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001171     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001172     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001173     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001174     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001175     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001176     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001177     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001178     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001179     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001180     0.00000004723      3.49      6.51      3.25
   SRCPARAM L0001181     0.00000004723      3.49      6.51      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0001182     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001183     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001184     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001185     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001186     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001187     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001188     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001189     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001190     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001191     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001192     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001193     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001194     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001195     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001196     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001197     0.00000002851      3.49      4.00      3.25
   SRCPARAM L0001198     0.00000002851      3.49      4.00      3.25
```

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   SRCPARAM L0001199     0.00000002851      3.49      4.00      3.25
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0001200     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001201     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001202     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001203     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001204     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001205     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001206     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001207     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001208     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001209     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001210     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001211     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001212     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001213     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001214     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001215     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001216     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001217     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001218     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001219     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001220     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001221     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001222     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001223     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001224     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001225     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001226     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001227     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001228     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001229     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001230     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001231     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001232     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001233     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001234     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001235     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001236     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001237     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001238     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001239     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001240     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001241     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001242     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001243     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001244     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001245     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001246     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001247     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001248     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001249     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001250     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001251     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001252     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001253     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001254     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001255     0.00000004699      3.49      6.51      3.25
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SRCPARAM L0001257     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001258     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001259     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001260     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001261     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001262     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001263     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001264     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001265     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001266     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001267     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001268     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001269     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001270     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001271     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001272     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001273     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001274     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001275     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001276     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001277     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001278     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001279     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001280     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001281     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001282     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001283     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001284     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001285     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001286     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001287     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001288     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001289     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001290     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001291     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001292     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001293     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001294     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001295     0.00000004699      3.49      6.51      3.25
SRCPARAM L0001296     0.00000004699      3.49      6.51      3.25
```

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   SRCPARAM L0001297     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001298     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001299     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001300     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001301     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001302     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001303     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001304     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001305     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001306     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001307     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001308     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001309     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001310     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001311     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001312     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001313     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001314     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001315     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001316     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001317     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001318     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001319     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001320     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001321     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001322     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001323     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001324     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001325     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001326     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001327     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001328     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001329     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001330     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001331     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001332     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001333     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001334     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001335     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001336     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001337     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001338     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001339     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001340     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001341     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001342     0.00000004699      3.49      6.51      3.25
   SRCPARAM L0001343     0.00000004699      3.49      6.51      3.25
** ----------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP ALL
```

```
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "15271-02 OPS HRA.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE PICO_V9_ADJU\PICO_v9.SFC
   PROFFILE PICO_V9_ADJU\PICO_v9.PFL
   SURFDATA 3166 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 58.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "15271-02 OPS HRA.AD\PE00GALL.PLT" 31
   SUMMFILE "15271-02 OPS HRA.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***
```

```
    ********   WARNING MESSAGES   ********
 ME W186     798       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     798       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:31:55

                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses URBAN Dispersion Algorithm for the SBL for   304 Source(s),
        for Total of    1 Urban Area(s):
   Urban Population =   9818605.0 ;  Urban Roughness Length =  1.000 m
      * Urban Roughness Length of 1.0 Meter Used.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: DPM

 **Model Calculates PERIOD Averages Only

 **This Run Includes:    304 Source(s);       1 Source Group(s); and      75
Receptor(s)

                with:      0 POINT(s), including
```

```
                    0 POINTCAP(s) and      0 POINTHOR(s)
          and:    304 VOLUME source(s)
          and:      0 AREA type source(s)
          and:      0 LINE source(s)
          and:      0 RLINE/RLINEXT source(s)
          and:      0 OPENPIT source(s)
          and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
          and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of PERIOD 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.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   15271-02 OPS HRA.err

 **File for Summary of Results:   15271-02 OPS HRA.sum
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                           *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0001040         0   0.10070E-05  413529.3 3766412.8   105.4     3.49     4.46
3.25     YES
 L0001041         0   0.10070E-05  413538.8 3766412.0   105.5     3.49     4.46
3.25     YES
 L0001042         0   0.10070E-05  413548.4 3766411.2   105.6     3.49     4.46
3.25     YES
 L0001043         0   0.10070E-05  413557.9 3766410.4   105.7     3.49     4.46
3.25     YES
 L0001044         0   0.10070E-05  413567.5 3766409.5   105.8     3.49     4.46
3.25     YES
 L0001045         0   0.10070E-05  413577.0 3766408.7   105.8     3.49     4.46
3.25     YES
 L0001046         0   0.10070E-05  413586.6 3766407.9   105.9     3.49     4.46
3.25     YES
 L0001047         0   0.10070E-05  413596.2 3766407.1   106.0     3.49     4.46
3.25     YES
 L0001048         0   0.10070E-05  413605.7 3766406.2   106.0     3.49     4.46
3.25     YES
 L0001049         0   0.10070E-05  413615.3 3766405.4   106.0     3.49     4.46
3.25     YES
 L0001050         0   0.10070E-05  413624.8 3766404.6   106.0     3.49     4.46
3.25     YES
 L0001051         0   0.10070E-05  413634.4 3766403.8   106.1     3.49     4.46
3.25     YES
 L0001052         0   0.14250E-06  413516.0 3766553.6   105.8     3.49     4.00
3.25     YES
 L0001053         0   0.14250E-06  413515.3 3766545.0   106.0     3.49     4.00
3.25     YES
 L0001054         0   0.14250E-06  413514.7 3766536.4   106.1     3.49     4.00
3.25     YES
 L0001055         0   0.14250E-06  413514.1 3766527.9   106.0     3.49     4.00
3.25     YES
 L0001056         0   0.14250E-06  413513.4 3766519.3   106.0     3.49     4.00
3.25     YES
 L0001057         0   0.14250E-06  413512.8 3766510.7   105.9     3.49     4.00
3.25     YES
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 L0001058         0   0.14250E-06  413512.1 3766502.2   105.9     3.49     4.00
3.25     YES
 L0001059         0   0.14250E-06  413511.3 3766493.6   105.9     3.49     4.00
3.25     YES
 L0001060         0   0.14250E-06  413510.6 3766485.1   105.9     3.49     4.00
3.25     YES
 L0001061         0   0.14250E-06  413509.8 3766476.5   105.9     3.49     4.00
3.25     YES
 L0001062         0   0.14250E-06  413509.0 3766467.9   105.8     3.49     4.00
3.25     YES
 L0001063         0   0.14250E-06  413508.3 3766459.4   105.8     3.49     4.00
3.25     YES
 L0001064         0   0.14250E-06  413507.5 3766450.8   105.8     3.49     4.00
3.25     YES
 L0001065         0   0.14250E-06  413506.7 3766442.3   105.7     3.49     4.00
3.25     YES
 L0001066         0   0.14250E-06  413506.0 3766433.7   105.6     3.49     4.00
3.25     YES
 L0001067         0   0.14250E-06  413505.3 3766425.2   105.5     3.49     4.00
3.25     YES
 L0001068         0   0.14250E-06  413504.6 3766416.6   105.4     3.49     4.00
3.25     YES
 L0001069         0   0.14250E-06  413503.8 3766408.0   105.5     3.49     4.00
3.25     YES
 L0001070         0   0.14250E-06  413503.4 3766399.5   105.6     3.49     4.00
3.25     YES
 L0001071         0   0.14250E-06  413504.7 3766391.5   105.7     3.49     4.00
3.25     YES
 L0001072         0   0.14250E-06  413513.2 3766390.6   105.8     3.49     4.00
3.25     YES
 L0001073         0   0.14250E-06  413521.8 3766389.7   105.9     3.49     4.00
3.25     YES
 L0001074         0   0.14250E-06  413530.3 3766388.9   105.8     3.49     4.00
3.25     YES
 L0001075         0   0.14250E-06  413538.9 3766388.1   105.8     3.49     4.00
3.25     YES
 L0001076         0   0.14250E-06  413547.4 3766387.5   105.7     3.49     4.00
3.25     YES
 L0001077         0   0.14250E-06  413556.0 3766386.9   105.9     3.49     4.00
3.25     YES
 L0001078         0   0.14250E-06  413564.6 3766386.4   106.0     3.49     4.00
3.25     YES
 L0001079         0   0.14250E-06  413573.1 3766385.8   106.2     3.49     4.00
3.25     YES
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        11:31:55

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                            *** 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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 L0001080         0   0.14250E-06  413581.7 3766385.2   106.3     3.49     4.00
3.25     YES
 L0001081         0   0.14250E-06  413590.3 3766384.7   106.4     3.49     4.00
3.25     YES
 L0001082         0   0.14250E-06  413598.9 3766384.1   106.5     3.49     4.00
3.25     YES
 L0001083         0   0.14250E-06  413607.4 3766383.5   106.4     3.49     4.00
3.25     YES
 L0001084         0   0.14250E-06  413616.0 3766383.0   106.3     3.49     4.00
3.25     YES
 L0001085         0   0.14250E-06  413624.6 3766382.6   106.2     3.49     4.00
3.25     YES
 L0001086         0   0.14250E-06  413633.2 3766382.2   106.3     3.49     4.00
3.25     YES
 L0001087         0   0.14250E-06  413641.7 3766381.8   106.5     3.49     4.00
3.25     YES
 L0001088         0   0.14250E-06  413648.2 3766385.5   106.6     3.49     4.00
3.25     YES
 L0001089         0   0.14250E-06  413652.7 3766392.7   106.5     3.49     4.00
3.25     YES
 L0001090         0   0.14250E-06  413658.5 3766399.0   106.5     3.49     4.00
3.25     YES
 L0001091         0   0.14250E-06  413666.3 3766401.6   106.6     3.49     4.00
3.25     YES
 L0001092         0   0.14250E-06  413674.5 3766399.4   106.8     3.49     4.00
3.25     YES
 L0001093         0   0.14250E-06  413683.0 3766400.0   106.9     3.49     4.00
3.25     YES
 L0001094         0   0.14250E-06  413691.4 3766401.7   107.0     3.49     4.00
3.25     YES
 L0001095         0   0.14250E-06  413699.6 3766399.5   107.1     3.49     4.00
3.25     YES
 L0001096         0   0.47230E-07  413507.4 3766574.6   105.3     3.49     6.51
3.25     YES
 L0001097         0   0.47230E-07  413493.5 3766575.8   105.2     3.49     6.51
3.25     YES
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 L0001098         0   0.47230E-07  413479.6 3766577.0   105.1     3.49     6.51
3.25     YES
 L0001099         0   0.47230E-07  413465.6 3766578.3   105.0     3.49     6.51
3.25     YES
 L0001100         0   0.47230E-07  413451.7 3766579.5   104.9     3.49     6.51
3.25     YES
 L0001101         0   0.47230E-07  413437.7 3766580.7   104.7     3.49     6.51
3.25     YES
 L0001102         0   0.47230E-07  413423.8 3766581.9   104.6     3.49     6.51
3.25     YES
 L0001103         0   0.47230E-07  413409.8 3766583.2   104.5     3.49     6.51
3.25     YES
 L0001104         0   0.47230E-07  413395.9 3766584.4   104.5     3.49     6.51
3.25     YES
 L0001105         0   0.47230E-07  413381.9 3766585.6   104.6     3.49     6.51
3.25     YES
 L0001106         0   0.47230E-07  413368.0 3766586.9   104.6     3.49     6.51
3.25     YES
 L0001107         0   0.47230E-07  413354.0 3766588.1   104.4     3.49     6.51
3.25     YES
 L0001108         0   0.47230E-07  413340.1 3766589.3   104.2     3.49     6.51
3.25     YES
 L0001109         0   0.47230E-07  413326.1 3766590.5   104.2     3.49     6.51
3.25     YES
 L0001110         0   0.47230E-07  413312.2 3766591.8   104.2     3.49     6.51
3.25     YES
 L0001111         0   0.47230E-07  413298.3 3766593.0   104.2     3.49     6.51
3.25     YES
 L0001112         0   0.47230E-07  413284.3 3766594.2   104.1     3.49     6.51
3.25     YES
 L0001113         0   0.47230E-07  413270.4 3766595.5   104.1     3.49     6.51
3.25     YES
 L0001114         0   0.47230E-07  413256.4 3766596.7   104.0     3.49     6.51
3.25     YES
 L0001115         0   0.47230E-07  413242.5 3766597.9   104.0     3.49     6.51
3.25     YES
 L0001116         0   0.47230E-07  413228.5 3766599.1   104.0     3.49     6.51
3.25     YES
 L0001117         0   0.47230E-07  413214.6 3766600.4   103.9     3.49     6.51
3.25     YES
 L0001118         0   0.47230E-07  413200.6 3766601.6   103.9     3.49     6.51
3.25     YES
 L0001119         0   0.47230E-07  413186.7 3766602.8   103.8     3.49     6.51
3.25     YES
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                            *** 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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 L0001120         0   0.47230E-07  413172.7 3766604.0   103.8     3.49     6.51
3.25     YES
 L0001121         0   0.47230E-07  413158.8 3766605.3   103.7     3.49     6.51
3.25     YES
 L0001122         0   0.47230E-07  413144.9 3766606.5   103.7     3.49     6.51
3.25     YES
 L0001123         0   0.47230E-07  413130.9 3766607.7   103.7     3.49     6.51
3.25     YES
 L0001124         0   0.47230E-07  413117.0 3766609.0   103.6     3.49     6.51
3.25     YES
 L0001125         0   0.47230E-07  413103.0 3766610.2   103.5     3.49     6.51
3.25     YES
 L0001126         0   0.47230E-07  413089.1 3766611.4   103.5     3.49     6.51
3.25     YES
 L0001127         0   0.47230E-07  413075.1 3766612.6   103.4     3.49     6.51
3.25     YES
 L0001128         0   0.47230E-07  413061.2 3766613.9   103.3     3.49     6.51
3.25     YES
 L0001129         0   0.47230E-07  413047.2 3766615.1   103.3     3.49     6.51
3.25     YES
 L0001130         0   0.47230E-07  413033.3 3766616.3   103.2     3.49     6.51
3.25     YES
 L0001131         0   0.47230E-07  413019.3 3766617.6   103.2     3.49     6.51
3.25     YES
 L0001132         0   0.47230E-07  413005.4 3766618.8   103.2     3.49     6.51
3.25     YES
 L0001133         0   0.47230E-07  412991.4 3766620.0   103.2     3.49     6.51
3.25     YES
 L0001134         0   0.47230E-07  412977.5 3766621.2   103.1     3.49     6.51
3.25     YES
 L0001135         0   0.47230E-07  412963.6 3766622.5   103.1     3.49     6.51
3.25     YES
 L0001136         0   0.47230E-07  412949.6 3766623.7   103.0     3.49     6.51
3.25     YES
 L0001137         0   0.47230E-07  412935.7 3766624.9   103.0     3.49     6.51
3.25     YES
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 L0001138         0   0.47230E-07  412921.7 3766626.1   102.9      3.49     6.51
3.25     YES
 L0001139         0   0.47230E-07  412907.8 3766627.4   102.8      3.49     6.51
3.25     YES
 L0001140         0   0.47230E-07  412893.8 3766628.6   102.7      3.49     6.51
3.25     YES
 L0001141         0   0.47230E-07  412879.9 3766629.8   102.7      3.49     6.51
3.25     YES
 L0001142         0   0.47230E-07  412865.9 3766631.1   102.6      3.49     6.51
3.25     YES
 L0001143         0   0.47230E-07  412852.0 3766632.3   102.5      3.49     6.51
3.25     YES
 L0001144         0   0.47230E-07  412838.0 3766633.5   102.5      3.49     6.51
3.25     YES
 L0001145         0   0.47230E-07  412824.1 3766634.7   102.4      3.49     6.51
3.25     YES
 L0001146         0   0.47230E-07  412810.1 3766636.0   102.4      3.49     6.51
3.25     YES
 L0001147         0   0.47230E-07  412796.2 3766637.2   102.3      3.49     6.51
3.25     YES
 L0001148         0   0.47230E-07  412782.3 3766638.4   102.2      3.49     6.51
3.25     YES
 L0001149         0   0.47230E-07  412768.3 3766639.7   102.2      3.49     6.51
3.25     YES
 L0001150         0   0.47230E-07  412754.4 3766640.9   102.1      3.49     6.51
3.25     YES
 L0001151         0   0.47230E-07  412740.4 3766642.1   102.0      3.49     6.51
3.25     YES
 L0001152         0   0.47230E-07  412726.5 3766643.3   101.9      3.49     6.51
3.25     YES
 L0001153         0   0.47230E-07  412712.5 3766644.6   101.8      3.49     6.51
3.25     YES
 L0001154         0   0.47230E-07  412698.6 3766645.8   101.7      3.49     6.51
3.25     YES
 L0001155         0   0.47230E-07  412684.6 3766647.0   101.6      3.49     6.51
3.25     YES
 L0001156         0   0.47230E-07  412670.7 3766648.2   101.5      3.49     6.51
3.25     YES
 L0001157         0   0.47230E-07  412656.7 3766649.5   101.4      3.49     6.51
3.25     YES
 L0001158         0   0.47230E-07  412642.8 3766650.7   101.4      3.49     6.51
3.25     YES
 L0001159         0   0.47230E-07  412628.8 3766651.9   101.3      3.49     6.51
3.25     YES
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        11:31:55

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                          *** 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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 L0001160         0   0.47230E-07  412614.9 3766653.2   101.3     3.49     6.51
3.25     YES
 L0001161         0   0.47230E-07  412601.0 3766654.4   101.2     3.49     6.51
3.25     YES
 L0001162         0   0.47230E-07  412587.0 3766655.6   101.2     3.49     6.51
3.25     YES
 L0001163         0   0.47230E-07  412573.1 3766656.9   101.1     3.49     6.51
3.25     YES
 L0001164         0   0.47230E-07  412559.1 3766658.4   101.0     3.49     6.51
3.25     YES
 L0001165         0   0.47230E-07  412545.2 3766659.8   100.9     3.49     6.51
3.25     YES
 L0001166         0   0.47230E-07  412531.3 3766661.3   100.9     3.49     6.51
3.25     YES
 L0001167         0   0.47230E-07  412517.4 3766662.8   100.9     3.49     6.51
3.25     YES
 L0001168         0   0.47230E-07  412503.5 3766664.2   100.9     3.49     6.51
3.25     YES
 L0001169         0   0.47230E-07  412489.5 3766665.7   100.9     3.49     6.51
3.25     YES
 L0001170         0   0.47230E-07  412475.6 3766667.2   100.8     3.49     6.51
3.25     YES
 L0001171         0   0.47230E-07  412461.7 3766668.7   100.8     3.49     6.51
3.25     YES
 L0001172         0   0.47230E-07  412447.8 3766670.1   100.8     3.49     6.51
3.25     YES
 L0001173         0   0.47230E-07  412433.8 3766671.6   100.9     3.49     6.51
3.25     YES
 L0001174         0   0.47230E-07  412419.9 3766673.1   100.9     3.49     6.51
3.25     YES
 L0001175         0   0.47230E-07  412406.0 3766674.6   100.8     3.49     6.51
3.25     YES
 L0001176         0   0.47230E-07  412392.1 3766676.0   100.8     3.49     6.51
3.25     YES
 L0001177         0   0.47230E-07  412378.2 3766677.5   100.8     3.49     6.51
3.25     YES
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 L0001178         0   0.47230E-07  412364.2 3766679.0   100.7     3.49     6.51
3.25     YES
 L0001179         0   0.47230E-07  412350.3 3766680.5   100.6     3.49     6.51
3.25     YES
 L0001180         0   0.47230E-07  412336.4 3766681.9   100.5     3.49     6.51
3.25     YES
 L0001181         0   0.47230E-07  412322.5 3766683.4   100.4     3.49     6.51
3.25     YES
 L0001182         0   0.28510E-07  413713.8 3766402.5   107.4     3.49     4.00
3.25     YES
 L0001183         0   0.28510E-07  413714.5 3766411.1   107.3     3.49     4.00
3.25     YES
 L0001184         0   0.28510E-07  413715.2 3766419.6   107.3     3.49     4.00
3.25     YES
 L0001185         0   0.28510E-07  413716.0 3766428.2   107.2     3.49     4.00
3.25     YES
 L0001186         0   0.28510E-07  413716.7 3766436.7   107.2     3.49     4.00
3.25     YES
 L0001187         0   0.28510E-07  413717.4 3766445.3   107.1     3.49     4.00
3.25     YES
 L0001188         0   0.28510E-07  413718.2 3766453.8   107.2     3.49     4.00
3.25     YES
 L0001189         0   0.28510E-07  413718.9 3766462.4   107.2     3.49     4.00
3.25     YES
 L0001190         0   0.28510E-07  413719.7 3766471.0   107.3     3.49     4.00
3.25     YES
 L0001191         0   0.28510E-07  413720.4 3766479.5   107.3     3.49     4.00
3.25     YES
 L0001192         0   0.28510E-07  413721.1 3766488.1   107.3     3.49     4.00
3.25     YES
 L0001193         0   0.28510E-07  413721.9 3766496.6   107.2     3.49     4.00
3.25     YES
 L0001194         0   0.28510E-07  413722.6 3766505.2   107.2     3.49     4.00
3.25     YES
 L0001195         0   0.28510E-07  413723.3 3766513.8   107.2     3.49     4.00
3.25     YES
 L0001196         0   0.28510E-07  413724.1 3766522.3   107.3     3.49     4.00
3.25     YES
 L0001197         0   0.28510E-07  413724.8 3766530.9   107.3     3.49     4.00
3.25     YES
 L0001198         0   0.28510E-07  413725.5 3766539.4   107.4     3.49     4.00
3.25     YES
 L0001199         0   0.28510E-07  413726.1 3766548.0   107.4     3.49     4.00
3.25     YES
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                  *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0001200         0   0.46990E-07  413733.2 3766560.6   107.6     3.49     6.51
3.25     YES
 L0001201         0   0.46990E-07  413747.2 3766560.5   107.9     3.49     6.51
3.25     YES
 L0001202         0   0.46990E-07  413761.2 3766560.4   108.2     3.49     6.51
3.25     YES
 L0001203         0   0.46990E-07  413775.2 3766560.3   108.4     3.49     6.51
3.25     YES
 L0001204         0   0.46990E-07  413789.2 3766560.2   108.7     3.49     6.51
3.25     YES
 L0001205         0   0.46990E-07  413803.2 3766560.1   109.1     3.49     6.51
3.25     YES
 L0001206         0   0.46990E-07  413817.2 3766560.0   109.5     3.49     6.51
3.25     YES
 L0001207         0   0.46990E-07  413831.2 3766560.0   109.8     3.49     6.51
3.25     YES
 L0001208         0   0.46990E-07  413845.2 3766559.9   110.0     3.49     6.51
3.25     YES
 L0001209         0   0.46990E-07  413859.2 3766559.2   110.2     3.49     6.51
3.25     YES
 L0001210         0   0.46990E-07  413873.1 3766558.3   110.5     3.49     6.51
3.25     YES
 L0001211         0   0.46990E-07  413887.1 3766557.4   110.9     3.49     6.51
3.25     YES
 L0001212         0   0.46990E-07  413901.0 3766555.9   111.2     3.49     6.51
3.25     YES
 L0001213         0   0.46990E-07  413914.9 3766554.4   111.5     3.49     6.51
3.25     YES
 L0001214         0   0.46990E-07  413928.9 3766552.9   111.7     3.49     6.51
3.25     YES
 L0001215         0   0.46990E-07  413942.8 3766551.4   111.9     3.49     6.51
3.25     YES
 L0001216         0   0.46990E-07  413956.7 3766550.0   112.1     3.49     6.51
3.25     YES
 L0001217         0   0.46990E-07  413970.7 3766548.8   112.3     3.49     6.51
3.25     YES
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 L0001218         0   0.46990E-07  413984.6 3766547.6   112.5     3.49     6.51
3.25     YES
 L0001219         0   0.46990E-07  413998.6 3766546.4   112.6     3.49     6.51
3.25     YES
 L0001220         0   0.46990E-07  414012.5 3766545.2   112.7     3.49     6.51
3.25     YES
 L0001221         0   0.46990E-07  414026.5 3766543.9   112.9     3.49     6.51
3.25     YES
 L0001222         0   0.46990E-07  414040.4 3766542.7   113.0     3.49     6.51
3.25     YES
 L0001223         0   0.46990E-07  414054.3 3766541.5   113.1     3.49     6.51
3.25     YES
 L0001224         0   0.46990E-07  414068.3 3766540.2   113.2     3.49     6.51
3.25     YES
 L0001225         0   0.46990E-07  414082.2 3766538.9   113.3     3.49     6.51
3.25     YES
 L0001226         0   0.46990E-07  414096.2 3766537.5   113.4     3.49     6.51
3.25     YES
 L0001227         0   0.46990E-07  414110.1 3766536.2   113.5     3.49     6.51
3.25     YES
 L0001228         0   0.46990E-07  414124.0 3766534.9   113.6     3.49     6.51
3.25     YES
 L0001229         0   0.46990E-07  414138.0 3766533.6   113.6     3.49     6.51
3.25     YES
 L0001230         0   0.46990E-07  414151.9 3766532.3   113.7     3.49     6.51
3.25     YES
 L0001231         0   0.46990E-07  414165.8 3766531.0   113.8     3.49     6.51
3.25     YES
 L0001232         0   0.46990E-07  414179.8 3766529.7   113.8     3.49     6.51
3.25     YES
 L0001233         0   0.46990E-07  414193.7 3766528.5   113.7     3.49     6.51
3.25     YES
 L0001234         0   0.46990E-07  414207.7 3766527.3   113.6     3.49     6.51
3.25     YES
 L0001235         0   0.46990E-07  414221.6 3766526.1   113.5     3.49     6.51
3.25     YES
 L0001236         0   0.46990E-07  414235.6 3766524.8   113.3     3.49     6.51
3.25     YES
 L0001237         0   0.46990E-07  414249.5 3766523.6   113.2     3.49     6.51
3.25     YES
 L0001238         0   0.46990E-07  414263.5 3766522.4   113.2     3.49     6.51
3.25     YES
 L0001239         0   0.46990E-07  414277.4 3766521.2   113.1     3.49     6.51
3.25     YES
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        11:31:55

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                           *** 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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- - - - - - - - - - - - - - - - - - - - -

 L0001240         0   0.46990E-07  414291.4 3766520.0   113.1     3.49     6.51
3.25     YES
 L0001241         0   0.46990E-07  414305.3 3766518.8   113.1     3.49     6.51
3.25     YES
 L0001242         0   0.46990E-07  414319.3 3766517.6   113.2     3.49     6.51
3.25     YES
 L0001243         0   0.46990E-07  414333.2 3766516.4   113.5     3.49     6.51
3.25     YES
 L0001244         0   0.46990E-07  414347.2 3766515.2   113.7     3.49     6.51
3.25     YES
 L0001245         0   0.46990E-07  414361.1 3766513.9   113.6     3.49     6.51
3.25     YES
 L0001246         0   0.46990E-07  414375.0 3766512.6   113.6     3.49     6.51
3.25     YES
 L0001247         0   0.46990E-07  414389.0 3766511.4   113.7     3.49     6.51
3.25     YES
 L0001248         0   0.46990E-07  414402.9 3766510.1   113.8     3.49     6.51
3.25     YES
 L0001249         0   0.46990E-07  414416.9 3766508.8   113.9     3.49     6.51
3.25     YES
 L0001250         0   0.46990E-07  414430.8 3766507.5   114.0     3.49     6.51
3.25     YES
 L0001251         0   0.46990E-07  414444.7 3766506.2   114.0     3.49     6.51
3.25     YES
 L0001252         0   0.46990E-07  414458.7 3766504.8   114.3     3.49     6.51
3.25     YES
 L0001253         0   0.46990E-07  414472.6 3766503.5   114.4     3.49     6.51
3.25     YES
 L0001254         0   0.46990E-07  414486.6 3766502.2   114.6     3.49     6.51
3.25     YES
 L0001255         0   0.46990E-07  414500.5 3766500.8   114.7     3.49     6.51
3.25     YES
 L0001256         0   0.46990E-07  414514.4 3766499.5   114.9     3.49     6.51
3.25     YES
 L0001257         0   0.46990E-07  414528.4 3766498.2   115.1     3.49     6.51
3.25     YES
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3.25     YES
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3.25     YES
 L0001260         0   0.46990E-07  414570.2 3766494.2   115.6      3.49      6.51
3.25     YES
 L0001261         0   0.46990E-07  414584.1 3766493.0   115.8      3.49      6.51
3.25     YES
 L0001262         0   0.46990E-07  414598.1 3766491.7   116.0      3.49      6.51
3.25     YES
 L0001263         0   0.46990E-07  414612.0 3766490.5   116.2      3.49      6.51
3.25     YES
 L0001264         0   0.46990E-07  414626.0 3766489.3   116.4      3.49      6.51
3.25     YES
 L0001265         0   0.46990E-07  414639.9 3766488.1   116.5      3.49      6.51
3.25     YES
 L0001266         0   0.46990E-07  414653.9 3766486.9   116.6      3.49      6.51
3.25     YES
 L0001267         0   0.46990E-07  414667.8 3766485.7   116.8      3.49      6.51
3.25     YES
 L0001268         0   0.46990E-07  414681.8 3766484.5   116.9      3.49      6.51
3.25     YES
 L0001269         0   0.46990E-07  414695.7 3766483.3   117.2      3.49      6.51
3.25     YES
 L0001270         0   0.46990E-07  414709.6 3766482.1   117.6      3.49      6.51
3.25     YES
 L0001271         0   0.46990E-07  414723.6 3766480.9   118.0      3.49      6.51
3.25     YES
 L0001272         0   0.46990E-07  414737.5 3766479.6   118.2      3.49      6.51
3.25     YES
 L0001273         0   0.46990E-07  414751.5 3766478.3   118.3      3.49      6.51
3.25     YES
 L0001274         0   0.46990E-07  414765.4 3766477.0   118.4      3.49      6.51
3.25     YES
 L0001275         0   0.46990E-07  414779.4 3766475.7   118.6      3.49      6.51
3.25     YES
 L0001276         0   0.46990E-07  414793.3 3766474.4   118.7      3.49      6.51
3.25     YES
 L0001277         0   0.46990E-07  414807.2 3766473.1   118.9      3.49      6.51
3.25     YES
 L0001278         0   0.46990E-07  414821.2 3766471.9   119.1      3.49      6.51
3.25     YES
 L0001279         0   0.46990E-07  414835.1 3766470.6   119.3      3.49      6.51
3.25     YES
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                           *** 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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3.25     YES
 L0001281         0   0.46990E-07  414863.0 3766468.2   119.7     3.49     6.51
3.25     YES
 L0001282         0   0.46990E-07  414877.0 3766466.9   120.0     3.49     6.51
3.25     YES
 L0001283         0   0.46990E-07  414890.9 3766465.7   120.2     3.49     6.51
3.25     YES
 L0001284         0   0.46990E-07  414904.9 3766464.4   120.5     3.49     6.51
3.25     YES
 L0001285         0   0.46990E-07  414918.8 3766463.2   120.7     3.49     6.51
3.25     YES
 L0001286         0   0.46990E-07  414932.7 3766462.0   120.9     3.49     6.51
3.25     YES
 L0001287         0   0.46990E-07  414946.7 3766460.7   121.1     3.49     6.51
3.25     YES
 L0001288         0   0.46990E-07  414960.6 3766459.5   121.4     3.49     6.51
3.25     YES
 L0001289         0   0.46990E-07  414974.6 3766458.4   121.6     3.49     6.51
3.25     YES
 L0001290         0   0.46990E-07  414988.5 3766457.3   121.8     3.49     6.51
3.25     YES
 L0001291         0   0.46990E-07  415002.5 3766456.2   122.1     3.49     6.51
3.25     YES
 L0001292         0   0.46990E-07  415016.4 3766454.5   122.4     3.49     6.51
3.25     YES
 L0001293         0   0.46990E-07  415030.3 3766452.8   122.6     3.49     6.51
3.25     YES
 L0001294         0   0.46990E-07  415044.2 3766451.0   122.8     3.49     6.51
3.25     YES
 L0001295         0   0.46990E-07  415058.1 3766449.3   122.9     3.49     6.51
3.25     YES
 L0001296         0   0.46990E-07  415071.9 3766447.0   123.1     3.49     6.51
3.25     YES
 L0001297         0   0.46990E-07  415085.5 3766443.9   123.3     3.49     6.51
3.25     YES
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 L0001298         0   0.46990E-07  415099.2 3766440.8   123.7     3.49     6.51
3.25     YES
 L0001299         0   0.46990E-07  415112.8 3766437.7   124.2     3.49     6.51
3.25     YES
 L0001300         0   0.46990E-07  415126.1 3766433.4   124.7     3.49     6.51
3.25     YES
 L0001301         0   0.46990E-07  415139.2 3766428.4   125.3     3.49     6.51
3.25     YES
 L0001302         0   0.46990E-07  415152.3 3766423.4   125.8     3.49     6.51
3.25     YES
 L0001303         0   0.46990E-07  415165.3 3766418.4   126.4     3.49     6.51
3.25     YES
 L0001304         0   0.46990E-07  415177.9 3766412.2   127.0     3.49     6.51
3.25     YES
 L0001305         0   0.46990E-07  415190.5 3766406.0   127.3     3.49     6.51
3.25     YES
 L0001306         0   0.46990E-07  415203.0 3766399.8   127.7     3.49     6.51
3.25     YES
 L0001307         0   0.46990E-07  415215.6 3766393.6   128.4     3.49     6.51
3.25     YES
 L0001308         0   0.46990E-07  415228.1 3766387.4   129.0     3.49     6.51
3.25     YES
 L0001309         0   0.46990E-07  415239.3 3766379.1   129.3     3.49     6.51
3.25     YES
 L0001310         0   0.46990E-07  415250.0 3766370.1   129.6     3.49     6.51
3.25     YES
 L0001311         0   0.46990E-07  415260.8 3766361.2   130.2     3.49     6.51
3.25     YES
 L0001312         0   0.46990E-07  415271.8 3766352.5   130.7     3.49     6.51
3.25     YES
 L0001313         0   0.46990E-07  415282.8 3766343.8   131.2     3.49     6.51
3.25     YES
 L0001314         0   0.46990E-07  415293.4 3766334.7   131.6     3.49     6.51
3.25     YES
 L0001315         0   0.46990E-07  415303.3 3766324.8   132.1     3.49     6.51
3.25     YES
 L0001316         0   0.46990E-07  415313.2 3766314.9   132.5     3.49     6.51
3.25     YES
 L0001317         0   0.46990E-07  415323.1 3766305.0   133.1     3.49     6.51
3.25     YES
 L0001318         0   0.46990E-07  415333.0 3766295.1   133.6     3.49     6.51
3.25     YES
 L0001319         0   0.46990E-07  415342.5 3766284.9   134.2     3.49     6.51
3.25     YES
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                                          *** 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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 L0001320         0   0.46990E-07  415350.7 3766273.6   134.5     3.49     6.51
3.25     YES
 L0001321         0   0.46990E-07  415358.9 3766262.2   135.0     3.49     6.51
3.25     YES
 L0001322         0   0.46990E-07  415366.7 3766250.6   135.6     3.49     6.51
3.25     YES
 L0001323         0   0.46990E-07  415373.7 3766238.5   136.0     3.49     6.51
3.25     YES
 L0001324         0   0.46990E-07  415380.7 3766226.4   136.3     3.49     6.51
3.25     YES
 L0001325         0   0.46990E-07  415387.8 3766214.3   136.5     3.49     6.51
3.25     YES
 L0001326         0   0.46990E-07  415394.8 3766202.2   137.2     3.49     6.51
3.25     YES
 L0001327         0   0.46990E-07  415401.8 3766190.0   137.5     3.49     6.51
3.25     YES
 L0001328         0   0.46990E-07  415408.9 3766178.0   137.1     3.49     6.51
3.25     YES
 L0001329         0   0.46990E-07  415416.4 3766166.1   137.4     3.49     6.51
3.25     YES
 L0001330         0   0.46990E-07  415423.9 3766154.3   137.6     3.49     6.51
3.25     YES
 L0001331         0   0.46990E-07  415431.0 3766142.3   137.3     3.49     6.51
3.25     YES
 L0001332         0   0.46990E-07  415438.2 3766130.2   137.4     3.49     6.51
3.25     YES
 L0001333         0   0.46990E-07  415446.1 3766118.8   137.5     3.49     6.51
3.25     YES
 L0001334         0   0.46990E-07  415455.0 3766108.0   137.4     3.49     6.51
3.25     YES
 L0001335         0   0.46990E-07  415464.0 3766097.2   137.3     3.49     6.51
3.25     YES
 L0001336         0   0.46990E-07  415472.9 3766086.4   137.2     3.49     6.51
3.25     YES
 L0001337         0   0.46990E-07  415481.8 3766075.7   137.1     3.49     6.51
3.25     YES
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 L0001338         0   0.46990E-07  415491.5 3766065.5   136.9     3.49     6.51
3.25     YES
 L0001339         0   0.46990E-07  415501.4 3766055.6   136.7     3.49     6.51
3.25     YES
 L0001340         0   0.46990E-07  415511.3 3766045.8   136.5     3.49     6.51
3.25     YES
 L0001341         0   0.46990E-07  415521.9 3766036.5   136.5     3.49     6.51
3.25     YES
 L0001342         0   0.46990E-07  415532.4 3766027.3   136.5     3.49     6.51
3.25     YES
 L0001343         0   0.46990E-07  415542.9 3766018.1   136.5     3.49     6.51
3.25     YES
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:31:55

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                      SOURCE IDs
 -----------                                                      ----------


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↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        11:31:55

                                   PAGE  11
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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             L0001200    , L0001201    , L0001202    , L0001203    , L0001204    ,
L0001205    , L0001206    , L0001207    ,

             L0001208    , L0001209    , L0001210    , L0001211    , L0001212    ,
L0001213    , L0001214    , L0001215    ,

             L0001216    , L0001217    , L0001218    , L0001219    , L0001220    ,
L0001221    , L0001222    , L0001223    ,

             L0001224    , L0001225    , L0001226    , L0001227    , L0001228    ,
L0001229    , L0001230    , L0001231    ,

             L0001232    , L0001233    , L0001234    , L0001235    , L0001236    ,
L0001237    , L0001238    , L0001239    ,

             L0001240    , L0001241    , L0001242    , L0001243    , L0001244    ,
L0001245    , L0001246    , L0001247    ,

             L0001248    , L0001249    , L0001250    , L0001251    , L0001252    ,
L0001253    , L0001254    , L0001255    ,

             L0001256    , L0001257    , L0001258    , L0001259    , L0001260    ,
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L0001269    , L0001270    , L0001271    ,

             L0001272    , L0001273    , L0001274    , L0001275    , L0001276    ,
L0001277    , L0001278    , L0001279    ,

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L0001285    , L0001286    , L0001287    ,

             L0001288    , L0001289    , L0001290    , L0001291    , L0001292    ,
L0001293    , L0001294    , L0001295    ,

             L0001296    , L0001297    , L0001298    , L0001299    , L0001300    ,
L0001301    , L0001302    , L0001303    ,

             L0001304    , L0001305    , L0001306    , L0001307    , L0001308    ,
L0001309    , L0001310    , L0001311    ,

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             L0001320    , L0001321    , L0001322    , L0001323    , L0001324    ,
L0001325    , L0001326    , L0001327    ,
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L0001333    , L0001334    , L0001335    ,

             L0001336    , L0001337    , L0001338    , L0001339    , L0001340    ,
L0001341    , L0001342    , L0001343    ,
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


              9818605.   L0001040    , L0001041    , L0001042    , L0001043    ,
L0001044    , L0001045    , L0001046    ,
 L0001047    ,

             L0001048    , L0001049    , L0001050    , L0001051    , L0001052    ,
L0001053    , L0001054    , L0001055    ,

             L0001056    , L0001057    , L0001058    , L0001059    , L0001060    ,
L0001061    , L0001062    , L0001063    ,

             L0001064    , L0001065    , L0001066    , L0001067    , L0001068    ,
L0001069    , L0001070    , L0001071    ,

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L0001077    , L0001078    , L0001079    ,

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L0001085    , L0001086    , L0001087    ,

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L0001093    , L0001094    , L0001095    ,

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             L0001104    , L0001105    , L0001106    , L0001107    , L0001108    ,
L0001109    , L0001110    , L0001111    ,
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             L0001128    , L0001129    , L0001130    , L0001131    , L0001132    ,
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L0001197    , L0001198    , L0001199    ,
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        11:31:55

                                   PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0001200    , L0001201    , L0001202    , L0001203    , L0001204    ,
L0001205    , L0001206    , L0001207    ,
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               L0001208    , L0001209    , L0001210    , L0001211    , L0001212    ,
L0001213    , L0001214    , L0001215    ,

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L0001229    , L0001230    , L0001231    ,

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L0001317    , L0001318    , L0001319    ,

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L0001341    , L0001342    , L0001343    ,
🡅 *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:31:55

                                   PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                                     *** DISCRETE CARTESIAN RECEPTORS ***
                                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                  (METERS)

     ( 413744.9, 3766519.5,     108.2,     108.2,       0.0);         ( 413740.0,
3766502.6,     108.0,     108.0,       0.0);
     ( 413733.5, 3766483.9,     107.6,     107.6,       0.0);         ( 413726.8,
3766437.2,     107.5,     107.5,       0.0);
     ( 413725.1, 3766406.9,     107.6,     107.6,       0.0);         ( 413678.4,
3766373.5,     107.0,     217.4,       0.0);
     ( 413722.5, 3766355.9,     107.6,     217.4,       0.0);         ( 413624.9,
3766325.6,     106.6,     227.3,       0.0);
     ( 413514.5, 3766335.7,     105.8,     227.3,       0.0);         ( 413412.1,
3766344.1,     103.4,     227.5,       0.0);
     ( 413393.4, 3766345.3,     103.3,     227.5,       0.0);         ( 413375.9,
3766347.1,     102.9,     227.5,       0.0);
     ( 413357.6, 3766349.4,     102.5,     227.5,       0.0);         ( 413341.1,
3766350.4,     102.4,     227.5,       0.0);
     ( 413322.4, 3766351.4,     104.1,     227.5,       0.0);         ( 413499.7,
3766516.7,     105.8,     105.8,       0.0);
     ( 413492.7, 3766443.9,     105.5,     105.5,       0.0);         ( 413486.7,
3766367.9,     104.8,     227.3,       0.0);
     ( 413501.5, 3766541.4,     105.9,     105.9,       0.0);         ( 413431.7,
3766559.6,     104.9,     104.9,       0.0);
     ( 413743.9, 3766584.4,     108.0,     108.0,       0.0);         ( 413706.1,
3766591.8,     107.5,     107.5,       0.0);
     ( 413681.1, 3766587.4,     107.1,     107.1,       0.0);         ( 413596.6,
3766601.4,     106.3,     106.3,       0.0);
     ( 413558.8, 3766600.6,     105.9,     105.9,       0.0);         ( 413546.5,
3766601.2,     105.8,     105.8,       0.0);
     ( 413499.8, 3766605.7,     105.5,     105.5,       0.0);         ( 413531.9,
3766603.4,     105.6,     105.6,       0.0);
     ( 413130.9, 3766587.0,     103.7,     103.7,       0.0);         ( 413324.2,
3766616.0,     104.3,     104.3,       0.0);
     ( 413396.9, 3766617.3,     104.6,     104.6,       0.0);         ( 413464.0,
3766620.3,     105.2,     105.2,       0.0);
     ( 413136.1, 3766574.1,     103.8,     103.8,       0.0);         ( 413134.2,
3766540.8,     103.9,     103.9,       0.0);
     ( 413128.4, 3766488.8,     103.6,     103.6,       0.0);         ( 413127.1,
3766461.9,     103.6,     103.6,       0.0);
     ( 413134.5, 3766412.2,     102.9,     102.9,       0.0);         ( 413327.5,
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3766399.7,     104.8,     226.9,       0.0);
     ( 413497.3, 3766286.0,     105.8,     228.1,       0.0);         ( 413575.4,
3765897.3,     113.8,     228.1,       0.0);
     ( 413480.4, 3765903.7,     112.7,     228.1,       0.0);         ( 413668.1,
3765991.2,     109.8,     228.1,       0.0);
     ( 413722.6, 3766307.6,     106.0,     227.3,       0.0);         ( 413702.2,
3766264.8,     107.4,     227.5,       0.0);
     ( 414187.7, 3766655.2,     116.2,     116.2,       0.0);         ( 414288.5,
3765869.1,     112.2,     226.9,       0.0);
     ( 414673.6, 3766082.9,     116.6,     116.6,       0.0);         ( 414691.4,
3766106.2,     116.8,     116.8,       0.0);
     ( 412658.0, 3766957.2,     102.5,     102.5,       0.0);         ( 412700.1,
3766979.8,     102.8,     102.8,       0.0);
     ( 414128.2, 3766559.3,     113.8,     113.8,       0.0);         ( 414457.1,
3766523.7,     114.4,     114.4,       0.0);
     ( 414471.2, 3766487.1,     114.3,     114.3,       0.0);         ( 414002.8,
3766529.4,     112.4,     112.4,       0.0);
     ( 414867.2, 3766449.6,     120.0,     287.2,       0.0);         ( 415263.8,
3766340.0,     130.4,     301.6,       0.0);
     ( 415169.5, 3766440.6,     127.2,     301.4,       0.0);         ( 415366.7,
3766218.8,     135.1,     301.9,       0.0);
     ( 415459.7, 3766230.6,     158.9,     294.1,       0.0);         ( 415429.5,
3766100.5,     136.4,     301.9,       0.0);
     ( 415450.0, 3766154.3,     139.0,     301.9,       0.0);         ( 414857.1,
3766487.4,     120.0,     287.2,       0.0);
     ( 412861.0, 3766290.2,     103.0,     227.3,       0.0);         ( 412848.2,
3766310.4,     103.0,     103.0,       0.0);
     ( 412854.6, 3766235.2,     103.0,     227.5,       0.0);         ( 412645.5,
3766082.2,     104.7,     228.1,       0.0);
     ( 412619.6, 3766636.1,     101.2,     101.2,       0.0);         ( 412793.6,
3766657.0,     102.4,     102.4,       0.0);
     ( 412563.5, 3766676.3,     101.0,     101.0,       0.0);         ( 412668.6,
3766666.4,     101.8,     101.8,       0.0);
     ( 412796.8, 3766619.1,     102.4,     102.4,       0.0);         ( 412941.1,
3766604.7,     103.3,     103.3,       0.0);
     ( 412921.8, 3766644.7,     102.8,     102.8,       0.0);         ( 413423.5,
3766296.4,     105.5,     228.1,       0.0);
     ( 413747.3, 3766542.9,     108.2,     108.2,       0.0);

↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:31:55

                                   PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                      * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT
BE PERFORMED *
                        LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR
```

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FASTAREA/FASTALL


                              SOURCE          - - RECEPTOR LOCATION - -
DISTANCE
                                ID            XR (METERS)   YR (METERS)
(METERS)
                            - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -

                             L0001312           415263.8     3766340.0
0.86
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:31:55

                                   PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                            *** 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

                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,
```

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10.80,
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        11:31:55

                                   PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   PICO_V9_ADJU\PICO_v9.SFC
                  Met Version:  16216
   Profile file:   PICO_V9_ADJU\PICO_v9.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3166                  Upper air station no.:     3190
                  Name: UNKNOWN                                    Name: UNKNOWN

                  Year:   2010                                     Year:   2010

 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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 10 01 01   1 01  -38.6  0.384 -9.000 -9.000 -999.  572.    162.4  0.34   0.73
1.00    3.10  321.    9.1  283.8    5.5
 10 01 01   1 02  -33.5  0.333 -9.000 -9.000 -999.  462.    121.8  0.34   0.73
1.00    2.70  217.    9.1  282.5    5.5
 10 01 01   1 03  -21.9  0.218 -9.000 -9.000 -999.  251.     52.2  0.34   0.73
1.00    1.80  290.    9.1  282.5    5.5
 10 01 01   1 04  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73
1.00    2.20  255.    9.1  282.0    5.5
 10 01 01   1 05  -21.9  0.218 -9.000 -9.000 -999.  245.     52.2  0.34   0.73
1.00    1.80  234.    9.1  282.0    5.5
 10 01 01   1 06  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73
1.00    2.20  258.    9.1  282.0    5.5
 10 01 01   1 07  -27.2  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73
1.00    2.20  213.    9.1  281.4    5.5
 10 01 01   1 08  -22.6  0.335 -9.000 -9.000 -999.  466.    151.7  0.34   0.73
0.54    2.70  215.    9.1  282.0    5.5
 10 01 01   1 09   26.9  0.249  0.347  0.008   56.  302.    -51.9  0.34   0.73
0.32    1.80  199.    9.1  284.2    5.5
 10 01 01   1 10   65.3  0.365  0.593  0.008  116.  529.    -67.5  0.34   0.73
0.24    2.70  117.    9.1  288.1    5.5
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 10 01 01   1 11   94.5  0.374  0.933  0.008  311.  550.    -50.3  0.34   0.73
0.21    2.70  243.    9.1  290.4    5.5
 10 01 01   1 12  103.9  0.279  1.087  0.008  448.  359.    -19.0  0.34   0.73
0.20    1.80  130.    9.1  293.1    5.5
 10 01 01   1 13   83.7  0.273  1.073  0.008  533.  343.    -22.0  0.34   0.73
0.20    1.80  282.    9.1  294.9    5.5
 10 01 01   1 14   82.0  0.218  1.112  0.008  606.  245.    -11.4  0.34   0.73
0.21    1.30  290.    9.1  295.9    5.5
 10 01 01   1 15   38.9  0.202  0.881  0.008  636.  217.    -19.0  0.34   0.73
0.25    1.30  192.    9.1  294.9    5.5
 10 01 01   1 16   11.4  0.181  0.588  0.008  643.  185.    -47.4  0.34   0.73
0.33    1.30  218.    9.1  293.8    5.5
 10 01 01   1 17  -10.7  0.155 -9.000 -9.000 -999.  147.     31.4  0.34   0.73
0.60    1.30  255.    9.1  292.0    5.5
 10 01 01   1 18   -5.5  0.104 -9.000 -9.000 -999.   81.     18.6  0.34   0.73
1.00    0.90  129.    9.1  289.2    5.5
 10 01 01   1 19  -11.8  0.154 -9.000 -9.000 -999.  145.     27.8  0.34   0.73
1.00    1.30  264.    9.1  287.5    5.5
 10 01 01   1 20  -11.8  0.154 -9.000 -9.000 -999.  144.     27.8  0.34   0.73
1.00    1.30   25.    9.1  287.0    5.5
 10 01 01   1 21  -21.6  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73
1.00    1.80  343.    9.1  285.9    5.5
 10 01 01   1 22  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73
1.00    1.80  332.    9.1  284.9    5.5
 10 01 01   1 23  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73
1.00    1.80  178.    9.1  284.2    5.5
 10 01 01   1 24  -11.8  0.154 -9.000 -9.000 -999.  145.     27.6  0.34   0.73
1.00    1.30   28.    9.1  283.1    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01    5.5 0 -999.  -99.00   283.8   99.0  -99.00  -99.00
 10 01 01 01    9.1 1  321.    3.10  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***        11:31:55

                                   PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0001040    , L0001041
 , L0001042    , L0001043    , L0001044    ,
                 L0001045    , L0001046    , L0001047    , L0001048    , L0001049
 , L0001050    , L0001051    , L0001052    ,
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                L0001053    , L0001054    , L0001055    , L0001056    , L0001057
 , L0001058    , L0001059    , L0001060    ,
                L0001061    , L0001062    , L0001063    , L0001064    , L0001065
 , L0001066    , L0001067    ,  . . .      ,

                                             *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         413744.94    3766519.49        0.00067                         413740.02
3766502.57        0.00074
         413733.52    3766483.87        0.00087                         413726.83
3766437.22        0.00111
         413725.11    3766406.92        0.00116                         413678.41
3766373.46        0.00182
         413722.50    3766355.94        0.00072                         413624.88
3766325.63        0.00123
         413514.47    3766335.67        0.00119                         413412.12
3766344.13        0.00045
         413393.43    3766345.31        0.00038                         413375.91
3766347.08        0.00034
         413357.60    3766349.44        0.00029                         413341.07
3766350.43        0.00026
         413322.38    3766351.41        0.00024                         413499.71
3766516.74        0.00197
         413492.73    3766443.92        0.00263                         413486.72
3766367.94        0.00146
         413501.55    3766541.41        0.00171                         413431.74
3766559.56        0.00061
         413743.87    3766584.41        0.00049                         413706.06
3766591.77        0.00043
         413681.08    3766587.43        0.00044                         413596.64
3766601.40        0.00047
         413558.85    3766600.62        0.00052                         413546.45
3766601.21        0.00054
         413499.80    3766605.74        0.00056                         413531.88
3766603.37        0.00055
         413130.94    3766587.04        0.00032                         413324.23
3766615.97        0.00037
         413396.86    3766617.35        0.00039                         413463.98
3766620.30        0.00043
         413136.12    3766574.10        0.00025                         413134.19
3766540.77        0.00017
         413128.42    3766488.84        0.00013                         413127.14
```

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3766461.92        0.00013
         413134.51    3766412.24        0.00012                         413327.46
3766399.74        0.00027
         413497.33    3766285.96        0.00056                         413575.39
3765897.33        0.00006
         413480.36    3765903.74        0.00007                         413668.15
3765991.22        0.00009
         413722.62    3766307.65        0.00048                         413702.24
3766264.81        0.00038
         414187.73    3766655.18        0.00011                         414288.53
3765869.15        0.00003
         414673.58    3766082.86        0.00003                         414691.39
3766106.20        0.00003
         412657.96    3766957.17        0.00004                         412700.11
3766979.80        0.00004
         414128.17    3766559.27        0.00029                         414457.12
3766523.68        0.00030
         414471.22    3766487.13        0.00032                         414002.81
3766529.45        0.00038
         414867.18    3766449.62        0.00028                         415263.78
3766339.97        0.00024
         415169.52    3766440.65        0.00024                         415366.69
3766218.78        0.00029
         415459.67    3766230.64        0.00006                         415429.53
3766100.48        0.00020
         415450.05    3766154.34        0.00024                         414857.14
3766487.44        0.00029
         412860.95    3766290.25        0.00005                         412848.25
3766310.37        0.00006
         412854.60    3766235.18        0.00005                         412645.45
3766082.16        0.00003
         412619.57    3766636.10        0.00031                         412793.57
3766656.98        0.00030
         412563.52    3766676.32        0.00030                         412668.56
3766666.37        0.00031
         412796.82    3766619.11        0.00030                         412941.11
3766604.73        0.00030
         412921.84    3766644.70        0.00032                         413423.47
3766296.39        0.00038
         413747.27    3766542.91        0.00069
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                       *** THE SUMMARY OF MAXIMUM PERIOD ( 43848
```

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HRS) RESULTS ***


                                    ** 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       0.00263 AT (  413492.73,  3766443.92,
105.53,   105.53,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00197 AT (  413499.71,  3766516.74,
105.81,   105.81,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00182 AT (  413678.41,  3766373.46,
107.03,   217.44,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00171 AT (  413501.55,  3766541.41,
105.93,   105.93,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00146 AT (  413486.72,  3766367.94,
104.80,   227.27,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00123 AT (  413624.88,  3766325.63,
106.63,   227.27,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00119 AT (  413514.47,  3766335.67,
105.82,   227.27,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00116 AT (  413725.11,  3766406.92,
107.61,   107.61,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00111 AT (  413726.83,  3766437.22,
107.46,   107.46,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00087 AT (  413733.52,  3766483.87,
107.65,   107.65,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 22112  ***   *** C:\Lakes\AERMOD View\15271-02 OPS
HRA\15271-02 OPS HRA.isc           ***        08/24/23
 *** AERMET - VERSION  16216 ***   ***
                        ***       11:31:55

                                   PAGE  20
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------
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```
 A Total of           0 Fatal Error Message(s)
 A Total of           4 Warning Message(s)
 A Total of        1277 Informational Message(s)

 A Total of       43848 Hours Were Processed

 A Total of         152 Calm Hours Identified

 A Total of        1125 Missing Hours Identified (  2.57 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186     798       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 ME W187     798       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 MX W450   26305       CHKDAT: Record Out of Sequence in Meteorological File at:
  15010101
 MX W450   26305       CHKDAT: Record Out of Sequence in Meteorological File at:
2 year gap

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
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APPENDIX 2.4:

RISK CALCULATIONS

Construction Risk

Receptor No.	Age Bin	DPM Conc. (μg/m^3)	Exposure Frequency (days)	Exposure Duration (years)	Inhalation Rate (L/kg-day)	Inhalation Absorption Factor	Averaging Time (years)	FAH	ASF	Cancer Risk				Non-Cancer Risk								
										URF	CPF	Dose	Risk (per million)	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	REPRO	EYES
1	0 to 2	0.01744	250	1.00	1090	1	70	1.00	10	3.0E-04	1.1E+00	1.3E-05	1.95	5.0E+00	1.4E-03	3.5E-03						
												Total	1.95			3.5E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2	0 to 2	0.03398	250	1.00	1090	1	70	1.00	10	3.0E-04	1.1E+00	2.5E-05	3.81	5.0E+00	1.4E-03	6.8E-03						
(MEIR)												Total	3.81			6.8E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3	4 to 13	0.00509	180	1.00	572	1	70	1.00	3	3.0E-04	1.1E+00	1.4E-06	0.06	5.0E+00	1.4E-03	1.0E-03						
(MEISC)												Total	0.06			1.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4	0 to 2	0.00375	250	1.00	1090	1	70	1.00	10	3.0E-04	1.1E+00	2.8E-06	0.42	5.0E+00	1.4E-03	7.5E-04						
												Total	0.42			7.5E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5	0 to 2	0.00051	250	1.00	1090	1	70	1.00	10	3.0E-04	1.1E+00	3.8E-07	0.06	5.0E+00	1.4E-03	1.0E-04						
												Total	0.06			1.0E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6	16 to 41	0.0172	250	1.00	230	1	70	1.00	1	3.0E-04	1.1E+00	2.7E-06	0.04	5.0E+00	1.4E-03	3.4E-03						
												Total	0.04			3.4E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7	16 to 41	0.02557	250	1.00	230	1	70	1.00	1	3.0E-04	1.1E+00	4.0E-06	0.06	5.0E+00	1.4E-03	5.1E-03						
(MEIW)												Total	0.06			5.1E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Operational Risk

Receptor No.	Age Bin	DPM Conc. ($\mu g/m^3$)	Exposure Frequency (days)	Exposure Duration (years)	Inhalation Rate (L/kg-day)	Inhalation Absorption Factor	Averaging Time (years)	FAH	ASF	Cancer Risk				Non-Cancer Risk								
										URF	CPF	Dose	Risk (per million)	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	REPRO	EYES
1	-0.25 to 0	0.00044	350	0.25	361	1	70	0.85	10	3.0E-04	1.1E+00	1.5E-07	0.00	5.0E+00	1.4E-03	8.8E-05						
	0 to 2	0.00044	350	2	1090	1	70	0.85	10	3.0E-04	1.1E+00	4.6E-07	0.12	5.0E+00	1.4E-03	8.8E-05						
	2 to 16	0.00044	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	2.4E-07	0.11	5.0E+00	1.4E-03	8.8E-05						
	16 to 30	0.00044	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	1.1E-07	0.02	5.0E+00	1.4E-03	8.8E-05						
												Total	0.25			3.5E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2 (MEIR)	-0.25 to 0	0.00116	350	0.25	361	1	70	0.85	10	3.0E-04	1.1E+00	4.0E-07	0.01	5.0E+00	1.4E-03	2.3E-04						
	0 to 2	0.00116	350	2	1090	1	70	0.85	10	3.0E-04	1.1E+00	1.2E-06	0.31	5.0E+00	1.4E-03	2.3E-04						
	2 to 16	0.00116	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	6.4E-07	0.29	5.0E+00	1.4E-03	2.3E-04						
	16 to 30	0.00116	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	2.9E-07	0.04	5.0E+00	1.4E-03	2.3E-04						
												Total	0.66			9.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3 (MEISC)	4 to 13	0.00056	180	9.00	572	1	70	1.00	3	3.0E-04	1.1E+00	1.6E-07	0.06	5.0E+00	1.4E-03	1.1E-04						
												Total	0.06			1.1E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4	-0.25 to 0	0.00045	350	0.25	361	1	70	0.85	10	3.0E-04	1.1E+00	1.6E-07	0.00	5.0E+00	1.4E-03	9.0E-05						
	0 to 2	0.00045	350	2	1090	1	70	0.85	10	3.0E-04	1.1E+00	4.7E-07	0.12	5.0E+00	1.4E-03	9.0E-05						
	2 to 16	0.00045	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	2.5E-07	0.11	5.0E+00	1.4E-03	9.0E-05						
	16 to 30	0.00045	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	1.1E-07	0.02	5.0E+00	1.4E-03	9.0E-05						
												Total	0.25			3.6E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5	-0.25 to 0	0.00013	350	0.25	361	1	70	0.85	10	3.0E-04	1.1E+00	4.5E-08	0.00	5.0E+00	1.4E-03	2.6E-05						
	0 to 2	0.00013	350	2	1090	1	70	0.85	10	3.0E-04	1.1E+00	1.4E-07	0.03	5.0E+00	1.4E-03	2.6E-05						
	2 to 16	0.00013	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	7.1E-08	0.03	5.0E+00	1.4E-03	2.6E-05						
	16 to 30	0.00013	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	3.3E-08	0.00	5.0E+00	1.4E-03	2.6E-05						
												Total	0.07			1.0E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6	16 to 41	0.00119	250	25	230	1	70	1.00	1	3.0E-04	1.1E+00	1.9E-07	0.07	5.0E+00	1.4E-03	2.4E-04						
												Total	0.07			2.4E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7 (MEIW)	16 to 41	0.00263	250	25	230	1	70	1.00	1	3.0E-04	1.1E+00	4.1E-07	0.16	5.0E+00	1.4E-03	5.3E-04						
												Total	0.16			5.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Combined Construction and Operational Risk

Receptor No.	Age Bin	DPM Conc. (µg/m^3)	Exposure Frequency (days)	Exposure Duration (years)	Inhalation Rate (L/kg-day)	Inhalation Absorption Factor	Averaging Time (years)	FAH	ASF	Cancer Risk				Non-Cancer Risk								
										URF	CPF	Dose	Risk (per million)	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	REPRO	EYES
1	0 to 2	0.01744	250	1.00	1090	1	70	1.00	10	3.0E-04	1.1E+00	1.3E-05	1.95	5.0E+00	1.4E-03	3.5E-03						
	0 to 2	0.00044	350	1.00	1090	1	70	0.85	10	3.0E-04	1.1E+00	4.6E-07	0.06	5.0E+00	1.4E-03	8.8E-05						
	2 to 16	0.00044	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	2.4E-07	0.11	5.0E+00	1.4E-03	8.8E-05						
	16 to 30	0.00044	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	1.1E-07	0.02	5.0E+00	1.4E-03	8.8E-05						
												Total	2.14			3.8E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2 (MEIR)	0 to 2	0.03398	250	1.00	1090	1	70	1.00	10	3.0E-04	1.1E+00	2.5E-05	3.81	5.0E+00	1.4E-03	6.8E-03						
	0 to 2	0.00116	350	1.00	1090	1	70	0.85	10	3.0E-04	1.1E+00	1.2E-06	0.15	5.0E+00	1.4E-03	2.3E-04						
	2 to 16	0.00116	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	6.4E-07	0.29	5.0E+00	1.4E-03	2.3E-04						
	16 to 30	0.00116	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	2.9E-07	0.04	5.0E+00	1.4E-03	2.3E-04						
												Total	4.29			7.5E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3 (MEISC)	4 to 13	0.00509	180	1.00	572	1	70	1.00	3	3.0E-04	1.1E+00	1.4E-06	0.06	5.0E+00	1.4E-03	1.0E-03						
	4 to 13	0.00056	180	8.00	572	1	70	1.00	3	3.0E-04	1.1E+00	1.6E-07	0.06	5.0E+00	1.4E-03	1.1E-04						
												Total	0.12			1.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4	0 to 2	0.00375	250	1.00	1090	1	70	1.00	10	3.0E-04	1.1E+00	2.8E-06	0.42	5.0E+00	1.4E-03	7.5E-04						
	0 to 2	0.00045	350	1.00	1090	1	70	0.85	10	3.0E-04	1.1E+00	4.7E-07	0.06	5.0E+00	1.4E-03	9.0E-05						
	2 to 16	0.00045	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	2.5E-07	0.11	5.0E+00	1.4E-03	9.0E-05						
	16 to 30	0.00045	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	1.1E-07	0.02	5.0E+00	1.4E-03	9.0E-05						
												Total	0.61			1.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5	0 to 2	0.00051	250	1.00	1090	1	70	1.00	10	3.0E-04	1.1E+00	3.8E-07	0.06	5.0E+00	1.4E-03	1.0E-04						
	0 to 2	0.00013	350	1.00	1090	1	70	0.85	10	3.0E-04	1.1E+00	1.4E-07	0.02	5.0E+00	1.4E-03	2.6E-05						
	2 to 16	0.00013	350	14	572	1	70	0.72	3	3.0E-04	1.1E+00	7.1E-08	0.03	5.0E+00	1.4E-03	2.6E-05						
	16 to 30	0.00013	350	14	261	1	70	0.73	1	3.0E-04	1.1E+00	3.3E-08	0.00	5.0E+00	1.4E-03	2.6E-05						
												Total	0.11			1.8E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6	16 to 41	0.0172	250	1.00	230	1	70	1.00	1	3.0E-04	1.1E+00	2.7E-06	0.04	5.0E+00	1.4E-03	3.4E-03						
	16 to 41	0.00119	250	24.00	230	1	70	1.00	1	3.0E-04	1.1E+00	1.9E-07	0.07	5.0E+00	1.4E-03	2.4E-04						
												Total	0.11			3.4E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7 (MEIW)	16 to 41	0.02557	250	1.00	230	1	70	1.00	1	3.0E-04	1.1E+00	4.0E-06	0.06	5.0E+00	1.4E-03	5.1E-03						
	16 to 41	0.00263	250	24.00	230	1	70	1.00	1	3.0E-04	1.1E+00	4.1E-07	0.15	5.0E+00	1.4E-03	5.3E-04						
												Total	0.21			5.1E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

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APPENDIX C

Phase I Environmental Site Assessment Industry Hills Business Center 15940-16056 Amar Road and 15940-16063 Kaplan Avenue

APPENDIX D
Addendum to Phase I Environmental Site Assessment
16008 Amar Road

APPENDIX E

Environmentally Regulated Materials Survey Limited Due Diligence Asbestos and Lead Survey 16008 Amar Road

City of Industry
Amar Industry Hills Development
Initial Study/Mitigated Negative Declaration
November 30, 2023

APPENDIX F
Geotechnical Investigation Report for Industrial Development Site 16008 Amar Road

City of Industry
Amar Industry Hills Development
Initial Study/Mitigated Negative Declaration
November 30, 2023

Geotechnical Investigation Report

for

Industrial Development Site
16008 Amar Road
City of Industry, California

Prepared For:

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LANGAN

8 June 2022
700117701

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APPENDICES

1. INTRODUCTION AND PURPOSE

As requested by Hines, and in accordance with our Proposal for Geotechnical Engineering Services, dated 6 May 2022, which was subsequently authorized, Langan Engineering and Environmental Services, Inc., (LANGAN) has prepared a preliminary geotechnical report for the proposed industrial development (Project) at 16008 Amar Road, California (Site).

LANGAN's scope of services included the following:

- Researching, reviewing published geologic, environmental and seismic reports and maps containing the Site and vicinity;
- Conducting exploratory borings;
- Laboratory testing of select samples; and,
- Compilation of this geotechnical investigation report including an evaluation of site geologic hazards, conclusions and recommendations for the proposed development.

This report was prepared for design purposes and summarizes LANGAN's understanding of geotechnical and engineering geological aspects of the Site, including existing site conditions; LANGAN's site investigation and findings; and provides geotechnical recommendations for building foundations, grading and remedial grading for the proposed industrial warehouse. Recommendations presented herein are in accordance with the 2019 California Building Code (2019 CBC) and 2020 Los Angeles County Building Code (LADBS 2020). Elevations referenced herein are with respect to North American Vertical Datum of 1988 (NAVD 88), unless noted otherwise.

2. PROJECT OVERVIEW

2.1 Site Description

The approximate 10-acre Site is located in City of Industry, California see Figure 1. The site is bound by industrial developments to the west, a channel to the south, Amar Road to the north and Echelon Avenue Street to the east. A site vicinity map is shown in Figure 1. The site is currently occupied by commercial buildings and light industrial buildings including warehouses.

2.2 Proposed Development

Based on the Conceptual Site Plan by Ware Malcomb dated 30 March 2022, we understand the proposed development includes demolition of existing buildings and asphalt paved parking and roads and construction of an approximately 198,000 square foot industrial building.

Column loads have not been provided at the time of this report. Based on similar projects we have assumed typical interior column dead load plus live loads of 75 to 120 kips and 5 to 7 kips per linear feet for continuous wall footings around the building perimeter.

3. AVAILABLE INFORMATION REVIEW

Information that was reviewed included publicly available geotechnical and geologic information at or near the Site and publicly available geologic reports. Referenced information included reports, maps and websites from the agencies listed below:

- United States Geological Survey (USGS),
- California Geological Survey (CGS),
- Federal Emergency Management Agency (FEMA), and

- California Geologic Energy Management Division (CalGEM) previously known as the Division of Oil, Gas & Geothermal Resources (DOGGR).

3.1 Regional and Local Geologic Setting

The site is located in the Los Angeles (LA) Basin at the boundary of the Transverse Ranges and Peninsular geomorphic provinces. To the north, the Transverse Ranges are a series of mountains and valleys trending roughly east-west, oblique to the common northwest structural grain of coastal California. To the south, the Peninsular Ranges is a series of mountain ranges and valleys that trend northwest, sub-parallel to the San Andreas fault system. In this region, the San Jose Hills forms the inferred boundary between the two geomorphic provinces (Morton, 2003).

The LA Basin, which is the surface expression of a deep structural trough, has been subdivided into four primary structural blocks distinguished from one another by contrasting basement rock types and stratigraphy. These structural blocks are generally separated by zones of faulting along which movement has occurred intermittently since middle Miocene time (Yerkes and others, 1965).The site is located in the southcentral portion of the Northeastern Block of the basin, a roughly triangular-shaped area bounded on the south by the Elsinore/Whittier fault, on the east by the Chino fault, and on the north by the Sierra Madre/Cucamonga fault.

Locally, the site is within the San Gabriel Valley, an alluvial valley filled with Quaternary (about the last 2.6 million years) sediments sourced from the San Gabriel Mountains to the north. The valley drains to the south through the Whittier Narrows via the San Gabriel River and Rio Hondo. The site is immediately west of the San Jose Hills and east of the Puente Hills, both composed of Tertiary-aged (about 66 to 2.6 million years) sedimentary rocks (Morton, 2003). The site is mapped as underlain by young alluvial-fan deposits (Qyf3), described as slightly to moderately consolidated silts, sands with coarse-sand and gravel sections (Morton, 2003). A geologic map of the area is shown in Figure 3.

3.2 Geologic/Geotechnical Hazards

LANGAN's geologic hazard review was performed in general accordance with CGS "Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California" and the 2019 CBC. The following subsections present the results of the review of geologic hazards as they pertain to the Site.

Regional Faulting – We reviewed the CGS Fault Activity Map of California and the USGS Quaternary Fault and Fold Database to identify mapped faults within 100 kilometers of the Site. The closest known faults to the site are the Walnut Creek fault 0.3 kilometers (0.2 mile) northwest of the Site, the San Jose fault 4.7 kilometers (2.9 miles) east of the Site, and the Whittier fault approximately 7.9 kilometers (4.9 miles) south of the site. Figures 2A and 2B show the site location relative to the nearby faults.

Regional Seismicity – A search of the USGS ANSS Comprehensive Earthquake Catalog (ComCat), using a web-based Earthquake Archive Search and URL Builder tool, found that as of 12 May 2022, 45 earthquakes with magnitudes greater than 5.0 have occurred within a 100-km radius of the Site since 1900. A summary of the USGS ANSS ComCat reported earthquake events are provided in Appendix A.

The Site is located in a seismically active area that has historically been affected by generally moderate to occasionally high levels of ground motion. Due to the Site's close proximity to several currently mapped active faults, the proposed development will likely experience moderate to occasionally high ground shaking from these faults as well as ground shaking from other seismically active areas of southern California.

- Surface Rupture – Alquist-Priolo Earthquake Fault Zones (APEFZ) are regulatory zones established by California's State Geologist around active faults with the potential to cause surface rupture. The zones vary in width; however, they average approximately 1/4 mile wide. According to the CGS map titled "Earthquake Zones of Required Investigation, Baldwin Park Quadrangle" released 25 March 1999, the Site is not mapped within a currently established APEFZ of required investigation. The Whittier earthquake fault zone is the closest APEFZ to the site, 7.7 km (4.8 miles) south of the site.

  Historically, ground surface fault ruptures closely follow the traces of geologically young faults. The site is not within an APEFZ and no active or potentially active faults exist on the site. In a seismically active area, the remote possibility exists for future faulting in areas where no faults previously existed; however, we conclude the risk of surface faulting at the site is low.

- Liquefaction - Liquefaction is a transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength resulting from the buildup of excess pore water pressure, especially during earthquake-induced cyclic loading. Soil susceptible to liquefaction includes loose to medium dense sand and gravel and low-plasticity silts. According to the CGS map titled "Earthquake Zones of Required Investigation, Baldwin Park Quadrangle" released 25 March 1999, the Site is mapped in a zone of required investigation for liquefaction as shown in Figure 4. Liquefaction is evaluated in Section 6.2.
- Lateral Spreading – Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. The surficial blocks are transported downslope or in the direction of a free face, such as a slope, by earthquake and gravitational forces. The Site is mapped within a zone of required investigation for liquefaction and a channel is located adjacent to the southern property boundary. However, based on analysis presented in Section 6.2, based on the density and fines contents of the soils at the site, liquefaction is not likely so the and surrounding area is relatively flat, therefore we conclude -induced ground deformations include ground surface settlement and differential settlement resulting from liquefaction of saturated cohesionless soils and cyclic densification, or differential compaction, of unsaturated sands and gravels caused by earthquakes. The potential for cyclic densification and liquefaction induced settlement are evaluated in Section 6.2.
- Earthquake-Induced Landslide Areas – Based on CGS map titled "Earthquake Zones of Required Investigation, Baldwin Park Quadrangle", released 25 March 1999, the Site is not mapped in a zone of required investigation for earthquake induced landslides. Additionally, the site and surrounding area is relatively flat therefore we conclude the potential for landslides onsite is low.
- Historic High Groundwater – Based on the 1998 CGS report "Seismic Hazard Zone Report for the Baldwin Park 7.5-Minute Quadrangle", the historic high groundwater depth at the site is between approximately 30 and 35 feet. Historical Highest Ground Water Map is shown on Figure 6.
- Flood Mapping – Based on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM) Number 060371695F, dated 26 September 2008, the site is mapped within Zone X 'Area of Minimal Flood Hazard'. Flood Map is shown on Figure 5.

- Tsunami and Seiche – A tsunami is a long high sea wave caused by an earthquake, submarine landslide, or other underwater disturbance. A seiche is an oscillation of surface water in an enclosed or semi-enclosed basin such as a lake, bay, or harbor. The site is not located near the coast or body of water that has the potential to generate a tsunami or seiche. The site is outside of the mapped tsunami inundation zone (CGS, 2021).
- Subsidence – Land subsidence may be induced from withdrawal of oil, gas, or water from wells. Based on a search of the Cal GEM (formerly the Division of Oil, Gas & Geothermal Resources (DOGGR)) Well Finder online tool, there are no wells present near the Site. The closest active well is 1.2 miles southeast of the site in the Walnut Oil field, therefore we consider the potential for subsidence from oil extraction to be low.
- Expansive Soils – Expansive soils occur when the moisture content in the soil causes swelling or shrinking as a result of cyclic wet/dry weather cycles, installation of irrigation systems, change in landscape plantings, or changes in grading. Swelling and shrinking soils can result in differential movement of structures including floor slabs and foundations, and site work including hardscape, utilities, and sidewalks. The 2019 CBC defines potentially expansive soils as soils with expansion indices (EI) greater than 20. Expansive potential of the soils are discussed in Section 6.3.

4. SUBSURFACE INVESTIGATION

LANGAN's geotechnical field investigation included eight (8) borings, identified as LB-1 through LB-8. A percolation test (LP-1) was performed in LB-8. Borings were drilled by ABC Liovin Drilling using hollow-stem auger techniques with a truck-mounted CME-75 drill rig on 16 May 2022. Two borings were completed to a depth of 6.5 feet, four borings were completed to a depth of 26.5 feet and one boring was completed to a depth of 51.5 feet and the boring used for percolation test is completed to depth of 10 feet. The borings were performed under full-time observation of a LANGAN field engineer. Boring and percolation test locations are shown on Figure 7.

At select boring locations, bulk samples were collected from the upper 5 feet. At each boring location, Standard Penetration Tests (SPT[1]) and ring samples were collected at select depths using a 3.0-inch-outer-diameter split-barrel California sampler lined with 2.42-inch-inner-diameter brass rings in accordance with ASTM D3550. Soil samples were visually examined and classified in the field in accordance with the Unified Soil Classification System (USCS). Upon completion, the borings were backfilled with cement-grout-slurry and patched with concrete, the surface was brought to approximately pre-existing condition. Excess soil cuttings were placed in 55-gallon drums. Boring logs are included in Appendix B.

Prior to performing the subsurface investigation, borings were located and marked by a field engineer from our office. Underground Service Alert of Southern California (DigAlert) was contacted to locate and mark known public underground utilities present within the public rights-of-way.

4.1 Percolation Testing

Percolation testing was performed in boring LB-8/ LP-1 at a depth of approximately 10 feet. The tests were performed on 17 May 2022 under full-time observation of a LANGAN field engineer. The percolation test consisted of measuring the drop in water over time in a 2-inch diameter

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[1] The Standard Penetration Test is a measure of the soil density and consistency. The SPT N-value is defined as the number of blows required to drive a 2-inch outer diameter split-barrel sampler 12-inches after an initial penetration of 6 inches, using a 140-pound hammer free falling of a height of 30-inches (ASTM D1586).

polyvinyl chloride (PVC) pipe with a solid end cap and a minimum of 5 feet of slotted section at the bottom of the boring from 5 to 10 feet. A filter pack was poured around the slotted PVC section. Subsurface conditions where the infiltration test was conducted was mainly a silt layer

The percolation tests were performed in general accordance with the County of Los Angeles Department of Public Works "GS200.1 Guidelines for Geotechnical Investigation and Reporting Low Impact Development Stormwater Infiltration" dated 30 June 2021. Percolation test results are provided in Appendix C. Listed below are the average stabilized and design infiltration rate.

Table 1 – Percolation Results

Boring Location	Test Type	Average Stabilized Rate (inch-per-hour)	Soil Type at Test Depth	Design Infiltration Rate (inch-per-hour)
LB-8 / LP-1	Falling Head	1.0	Clay SAND (SC)	0.06

4.2 Laboratory Testing

Laboratory testing was performed by GeoLogic Associates and laboratory test results are attached in Appendix D. The laboratory test program included the following tests:

- Moisture and Dry Density – ASTM D2937
- Atterberg Limits – ASTM D4318
- Passing #200 Sieve – ASTM D1140
- Direct Shear – ASTM D3080
- Modified Proctor – ASTM D 1557
- Electrical Resistivity – CTM 643
- Chloride Content – CTM 422
- Sulfate Content – CTM 417
- Soil pH – CTM 643
- R-Value – CA Method 301
- Expansion Index – ASTM D4829

5. SUBSURFACE INVESTIGATION RESULTS

LANGAN's interpretation of the subsurface conditions is based on reported and encountered during our field investigation. In general, subsurface conditions within the Site consist of undocumented fill and alluvial deposits. Refer to Figure 8 for generalized subsurface cross-sections. Boring logs are attached in Appendix B.

- Undocumented Fill (afu) – Undocumented fill was encountered under asphalt pavement at the boring locations to a depth of 4 to 5 feet and consisted of low and high plasticity brown to dark brown, sandy clay or silty clay with varying amounts of silt or sand. Asphalt pavement had a thickness of 3.5 to 5 inches. Aggregate base where encountered had a thickness of 3 to 6 inches.

  Expansive index testing of the upper 5 feet in LB-6 resulted in an expansive index of 84 or medium expansive potential. A modified proctor test of the upper 5 feet in LB-3 resulted in a maximum dry density of 117 pounds per cubic feet and an optimum moisture content of 13 percent. Direct shear testing of a remolded sample from LB-3 resulted in a friction angle of approximately 29 degrees and cohesion of 100 pounds per square feet for peak and ultimate values.

- Alluvial deposits (Qa) – Alluvial deposits encountered under the undocumented fill consisted of interbedded brown to dark brown clay, sandy clay and sandy silt and silty to clayey sand and sands with varying amounts of gravel. Alluvial deposits identified as cohesive had raw SPT blow counts of 13 to 27 blows per foot while alluvial deposits identified as cohesionless had typical raw SPT blow counts of 20 to 70, on boring had a localized looser zone with a raw SPT blow county of 15 blows per foot.

- Groundwater – Groundwater was not encountered to the maximum depth explored of 50 feet. The historic high groundwater depth at the site is between approximately 30 and 35 feet according to the 1998 CGS report "Seismic Hazard Zone Report for the Baldwin Park 7.5-Minute Quadrangle".

6. GEOTECHNICAL DESIGN RECOMMENDATIONS

Our geotechnical evaluation and recommendations for seismic design, liquefaction, foundation, floor slab support, pavement design, corrosion and site design are provided below. From a geotechnical point of view, the Site is considered suitable for the proposed development following the recommendations outlined below.

6.1 Seismic Design Parameters

The following preliminary seismic design criteria are recommended for structures bearing on shallow foundations with ground improvement to mitigate the settlement hazard from liquefaction.

Criteria	Mapped (Site Class D)
MCE_R Spectral response acceleration at Short Periods, S_S	1.740g
MCE_R Spectral response acceleration at 1 second period, S_1	0.622g
Site-modified MCE_R Spectral Response Acceleration at Short Periods, S_{MS}	1.740g
Site-modified MCE_R Spectral Response Acceleration at 1 second period, S_{M1}	1.057g
Design Spectral Response Acceleration at short periods, S_{DS}	1.160g
Design Spectral Response Acceleration at 1 second period, S_{D1}	0.705g
MCE_G Peak Ground Acceleration, PGA_M	0.826g

Notes:

1. Recommended mapped values are based on F_a and F_v of 1.0 and 1.7, respectively.

The recommend mapped values above assume Exception No. 2 of Section 11.4.8 of ASCE 7-16 will be used for seismic design, and that the structures will not be classified as a seismically isolated structure or structure with damping systems.

The structural engineer should confirm the structural fundamental period of vibration and the seismic design approach (i.e. if the exceptions in Section 11.4.8 of ASCE 7-16 will be used). If the structural engineer elects not to use the exceptions of Section 11.4.8 of ASCE 7-16 or the structure will be designed as a seismically isolated structure or structure with damping systems, then a site-specific ground motion hazard analysis in accordance with Section 21.2 of ASCE 7-16 will be required for developing the seismic design criteria.

6.2 Liquefaction and Cyclic Densification

A liquefaction evaluation was performed for boring LB-3 using the historical high groundwater depth of 30 feet. For the analysis, an acceleration of 0.83g and magnitude earthquake of 6.9 was used based on a hazard level of 2 percent probability of exceedance in 50 years. Blow counts collected with a California Modified Sampler were factored with a value of 0.65 to calculate equivalent SPT N- Values. Based on the analysis, the factor of safety against liquefaction for the design earthquake is greater than 2, so liquefaction is not anticipated. Dry dynamic settlement of less than 1 inch is anticipated under the design earthquake event.

6.3 Expansive Soil

Potentially expansive soils are defined by the CBC 2019 as soils with expansion indices (EI) of greater than 20. Expansive index testing of the upper 5 feet of soil indicates that the soil has a "medium" expansion potential (EI of 49 at LB-3 and EI of 84 at LB-6). The soils with the expansion potential soils were the clayey soils within the undocumented fill. If these soils are to be used as backfill within the upper 5 feet of the site, we recommended mixing the soils with less expansive soils to reduce potential for heaving and settlement of pavement and other flatwork on site.

Expansive soils swell or shrink when the moisture content of the soil changes. A soil's moisture content can change through cyclic wet/dry weather cycles, variations in the groundwater level, installation of irrigation systems, change in landscape plantings, and changes in site grading. Leaking utilities can also drastically change soil moisture content.

6.4 Building Foundations

Based on the borings drilled to date, the soil underlying the proposed building consist of artificial fills and alluvial deposits. In general, the artificial fill in the upper 4 to 5 feet of the site is not suitable for support of the proposed structures and should be over-excavated and replaced with controlled, compacted fill If miscellaneous fill soils are encountered deeper, the fills should be remove to native alluvium. Removals should extend laterally beyond the structures to a distance equal to the depths of removal but should generally extend not less than 5 feet beyond the outside edges of foundations. Over-excavated material can be used as engineered fill in accordance with Section 7.2

6.4.1 Spread Footings or Continuous Footings

The proposed warehouse should be supported on new shallow foundations bearing on compacted fill or native subgrade if the subgrade is undisturbed. Footings can be designed with an allowable bearing of 4,000 psf, should have a minimum embedment depth of 24 inches and minimum width of 12 inches. Recommended allowable bearing values include both dead and live loads, and may be increased by one-third for transient loads, such as wind and seismic forces. Static footing settlement of less than 1 inch is anticipated and differential settlement of less than 1/2 inch over 100 feet is estimated with foundations bearing on compacted fill or native soils. Seismic settlement of less than 0.5 inch is estimated under the design earthquake loading.

The foundation subgrade should be free of standing water and deleterious debris, firm and unyielding, and observed and approved by LANGAN prior to steel or concrete placement. The contractor shall be responsible for maintaining the subgrade in its as approved condition (i.e. free of water, debris, etc.) until the foundation is constructed.

Lateral Resistance: An allowable coefficient of friction of 0.28 may be used for lateral sliding resistance for concrete foundations on approved compacted fill. The allowable coefficient of friction includes a factor of safety of 2. If the sliding resistance calculated using the above coefficient of friction is deemed insufficient, shear keys can be provided in the bearing material to provide supplemental sliding resistance. Should additional lateral resistance be required, we should be notified so we can perform additional analyses and develop supplemental recommendations to resist the intended loads.

6.5 Floor Slab

LANGAN anticipates the proposed floor slab can be designed as a slab-on-grade bearing on a minimum of 3 feet of compacted fill. The slab subgrade should be compacted, any loose or soft areas should be removed.

It is anticipated that the building will have a sock high slab that reported on compacted fill. Low expansive soils is recommend for slab subgrade. Based on our laboratory test results the near-surface soils within the site are generally anticipated to possess a **medium** expansion potential, therefore, native soils should be mixed with low expansion soil or cemented before used as

LANGAN recommends that slabs be designed using the following recommendations:

- Subgrade modulus, k, equal to 120 pounds per cubic inch (pci);
- 4-inch minimum thickness;
- For moisture sensitive floors, a 15-mil vapor barrier and 4 inches of sand or gravel can be used as a moisture barrier. The 15-mil vapor barrier should have joints lapped not less than 6 inches.
- Steel reinforcing should be designed by the project's Structural Engineer presuming medium expansive soil potential and sufficient to meet shrinkage reinforcement limits.

6.6 Flatwork

Flatwork can be supported on 12 inches of compacted fill. The upper 12 inches of subgrade material should be over-excavated and re-compacted. The excavation bottom be should be scarified, allowed to dry and compacted. Over excavated material can be used as engineered fill in accordance with recommendations later in this report. Based on our laboratory test results the near-surface soils within the site are generally anticipated to possess a **medium** expansion potential.

Sidewalks should be designed by the sidewalk designer based on anticipated loading however the following is recommended at a minimum. Exterior flatwork should be a minimum 4 inches thick. Cold joints or saw cuts should be provided at least every 5 feet in each direction. Flatwork more than 5 feet in width across the minimum dimension should be reinforced with 6" by 6", W4 by W4 welded wire mesh or No 3 bars spaced 18 inches center to center in both directions. Cold joints should be keyed or provided with dowels spaced 18 inches on center. Flatwork that meets the structure at points of entry should be doweled into the footing or grade beam of the structure. Consideration should also be given to doweling flatwork into curbs where they meet. Special jointing detail should be provided in areas of block-outs, notches, or other irregularities to avoid cracking at points of high stress.

6.7 Corrosion Considerations

Chemical analyses of the upper 5 feet in LB-3 are summarized below.

Table 2 – Soil Corrosion Test Results

Sample	Depth (feet)	Resistivity (ohm-cm)	pH	Soluble Sulfate (%)	Chloride (%)
LB-3/B-1	0-5	1,600	7.4	0.0156	0.0027

Based on the minimum resistivity, pH, sulfate and chloride contents, the upper approximately 5 feet of soil at this Site is considered moderately corrosive to ferrous metals (Romanoff, 1957). A corrosion expert should be consulted during the design phase for the most economical and effective corrosion protection if ferrous site utilities are required. Based on the soluble sulfate percent, concrete can be designed as exposure class S1 for sulfate exposure. A Type II cement mix with a maximum water-cement ratio of 0.50 and a minimum specified compressive strength (f'c) of 4,000 psi may be used for foundation concrete caps, beams, and slabs (ASTM C150). A copy of the corrosion results is provided in Appendix D.

6.8 Pavement Recommendations

The appropriate pavement section depends on the type and strength of subgrade soil, traffic load, and planned pavement life. The existing fill has areas of high plasticity clay with an R-Value of 2 based on laboratory results. Other soils on site have lower plasticity clay or more sand. We recommend that during overexcavation and recompaction of the soils at the site that higher clayey soils be segregated for use deeper than 3 feet below paving or be mixed with nonplastic soils to improve the soils. Higher R-Value 15 or more, is anticipated if the soils are mixed.

Since traffic loading was not provided we assumed average Traffic Indices (TI) based on similar projects. The design TI should be confirmed by the Civil Engineer or the Traffic Engineer based on the anticipated vehicle types and trips or based on the proposed tenant requirements.

Preliminary flexible pavement sections for auto parking areas and truck parking, and rigid pavement section compacted have been developed with the parameters summarized in the following tables. Table 3 provides recommendation pavement thickness based on both the lower R-value (2) and a higher R-value (15).

Table 3A - Pavement Recommendations (R-Value <10)

Pavement Area	Traffic Index	Section Thickness	
		Asphalt Concrete (inches)	**Aggregate Base (inches)**
Auto Parking Areas	5.0	3	11
Auto Parking Areas	6.0	5	10
Truck Paving	7.0	5	14

Table 3B - Pavement Recommendations (R-Value = 15)

Pavement Area	Traffic Index	Section Thickness	
		Asphalt Concrete (inches)	**Aggregate Base (inches)**
Auto Parking Areas	5.0	3	10
Auto Parking Areas	6.0	4	11
Truck Paving	7.0	4	14

The subgrade should be air dried between 0 to 3 percent above optimum moisture content, and compacted to a minimum of 95 percent of the laboratory maximum dry density, as determined by ASTM D1557 (Modified Proctor). Alternatively, the subgrade can be treated with cement to reduce the moisture content. Aggregate base should be moisture conditioned between 0 to 3 percent above of optimum moisture content and compacted to a minimum of 95 percent of the laboratory maximum dry density, as determined by ASTM D1557 (Modified Proctor).

6.9 Utilities

Utilities can be supported on compacted fill or approved native soils. Bedding material should extend at least 12 inches over the top of the utility unless otherwise required by the utility owner. Where necessary, trench excavations should be shored and braced, in accordance with all safety regulations, to prevent cave-ins. Utility subgrade should be confirmed to be free of standing water, firm, and unyielding prior to placement of bedding material. Utility trenches above pipe bedding should be backfilled in accordance with the recommendations provided herein with either previously excavated soil (if suitable), or with approved imported material.

Fill outside of building footprints or within 2 feet of pavement should be placed in loose lifts no greater than 8 inches in thickness and should be moisture conditioned between 0 to 3 percent above optimum moisture content and compacted to at least 90 percent of the laboratory maximum dry density as determined by ASTM D1557 (Modified Proctor).

6.10 Site Drainage

Proper drainage should be maintained at all times. Ponding or trapping of water in localized areas can cause differing moisture levels in the subsurface soil. Drainage should be directed away from the tops of excavations. Erosion protection and drainage control measures should be implemented during periods of inclement weather. During rainfall events, backfill operations may need to be restricted to allow for proper moisture control during fill placement.

7. CONSTRUCTION CONSIDERATIONS

7.1 Site Preparation

Prior to the commencement of excavation and grading, a meeting should be held at the Site with the Owner, excavation/grading Contractor, Civil Engineer and Geotechnical Engineer to discuss the work schedule and geotechnical aspects of the grading. All vegetation and deleterious materials should be disposed of off-site before beginning grading operations.

Building foundations and utilities from the existing structures should be completely removed during demolition and grading. If utility pipes are too deep to be removed economically, they should be filled with cement, sand grout or equivalent material that will prevent future collapse of the pipe.

Temporary excavations should be performed in accordance with Cal/OSHA. Excavations should not be left open for prolonged periods. If excavations are limited by existing improvements or property lines, special grading techniques, such as slot cuttings or other acceptable design criteria may be required. Under such conditions, specific recommendations should be provided by the geotechnical consultant during review of final grading plan.

7.2 Engineered Fill and Compaction Criteria

Imported fill should be non-corrosive to concrete and ferrous metals, contain no more than 15 percent passing the no. 200 sieve by dry weight and have a plasticity index less than 7. Grain size distributions, Atterberg limits, maximum dry density, and optimum water content (ASTM D1557) determinations should be made on representative samples of the proposed fill material before being brought to the Site.

Engineered fill should be placed in loose lifts no greater than 8 inches in thickness, moisture conditioned between 0 to 3 percent above of optimum moisture content, and compacted to at least 95 percent of the laboratory maximum dry density as determined by ASTM D1557 (Modified Proctor). In landscape areas or in areas greater than 2 feet below paving, cohesive soils can be compacted to at least 90 percent of laboratory maximum dry density as determined by ASTM D1557.

All engineered fill placement should be subject to controlled engineering observation by the Geotechnical Engineer or their representative. No fill material should be placed on areas where free water is standing or on surfaces that the geotechnical consultant has not approved.

8. SECTION 111 STATEMENT

Provided that the recommendations in this report are implemented, it is LANGAN's opinion that the proposed project will be safe from the hazards of landslide, settlement, or slippage and that the proposed project will not adversely affect the stability of adjacent properties.

9. SERVICES DURING DESIGN, CONSTRUCTION DOCUMENTS AND CONSTRUCTION QUALITY ASSURANCE

During final design we should be retained to consult with the design team as geotechnical questions arise. Technical specifications and design drawings should incorporate LANGAN's recommendations. When authorized, LANGAN will assist the design team in preparing specification sections related to geotechnical issues such as earthwork, shallow foundations, backfill and excavation support. LANGAN should also, when authorized, review the project plans, as well as Contractor submittals relating to materials and construction procedures for geotechnical work, to confirm the designs incorporate the intent of our recommendations.

LANGAN has investigated and interpreted the Site subsurface conditions and developed the foundation design recommendations contained herein, and is therefore best suited to perform quality assurance observation and testing of geotechnical-related work during construction. The work requiring quality assurance confirmation and/or special inspections per the Building Code includes, but is not limited to, earthwork, backfill, shallow foundations, and excavation support.

Recognizing that construction observation is the final stage of geotechnical design, quality assurance observation during construction by LANGAN is necessary to confirm the design assumptions and design elements, to maintain our continuity of responsibility on this project, and allow us to make changes to our recommendations, as necessary. The foundation system and general geotechnical construction methods recommended herein are predicated upon LANGAN assisting with the final design and providing construction observation services for the Owner. Should LANGAN not be retained for these services, we cannot assume the role of geotechnical engineer of record, and the entity providing the final design and construction observation services must serve as the engineer of record.

10. OWNER AND CONTRACTOR RESPONSIBILITIES

The Contractor is responsible for construction quality control, which includes satisfactorily constructing the foundation system and any associated temporary works to achieve the design intent while not adversely impacting or causing loss of support to neighboring property, structures, utilities, roadways, etc. Construction activities that can alter the existing ground conditions such as excavation, fill placement, foundation construction, ground improvement, pile driving/drilling, dewatering, etc. can also induce stresses, vibrations, and movements in nearby structures and utilities, and disturb occupants. Contractors are solely responsible to ensure that their activities will not adversely affect the structures and utilities, and will not disturb occupants. Contractors must also take all necessary measures to protect the existing structures, utilities, etc. during construction. By using this report, the Owner agrees that LANGAN will not be held responsible for any damage to adjacent structures, utilities, etc.

11. LIMITATIONS

The conclusions and recommendations provided in this report result from our interpretation of the geotechnical conditions existing at the site inferred from a limited number of borings as well as architectural information. Actual subsurface conditions may vary. Recommendations provided are dependent upon one another and no recommendation should be followed independent of the others.

Any proposed changes in structures or their locations should be brought to LANGAN's attention as soon as possible so that we can determine whether such changes affect our recommendations. Information on subsurface strata and groundwater levels shown on the logs represent conditions encountered only at the locations indicated and at the time of investigation. If different conditions are encountered during construction, they should immediately be brought to LANGAN's attention for evaluation, as they may affect our recommendations.

This report has been prepared to assist the Owner, architect, and structural engineer in the design process and is only applicable to the design of the specific project identified. The information in this report cannot be utilized or depended on by engineers or contractors who are involved in evaluations or designs of facilities (including underpinning, grouting, stabilization, etc.) on adjacent properties which are beyond the limits of that which is the specific subject of this report. Environmental issues (such as permitting or potentially contaminated soil and groundwater) are outside the scope of this study and should be addressed in a separate evaluation.

12. REFERENCES

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FIGURES

LEGEND:

– – – – – – APPROXIMATE SITE LIMITS

NOTES:

1. BACKGROUND IMAGE REFERENCED FROM MICROSOFT BING MAPS ON 1 JUNE 2022.

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16008 AMAR ROAD

CITY OF INDUSTRY
LOS ANGELES COUNTY CALIFORNIA

Drawing Title

SITE VICINITY MAP

Project No.
700117701

Date
JUNE 2022

Scale
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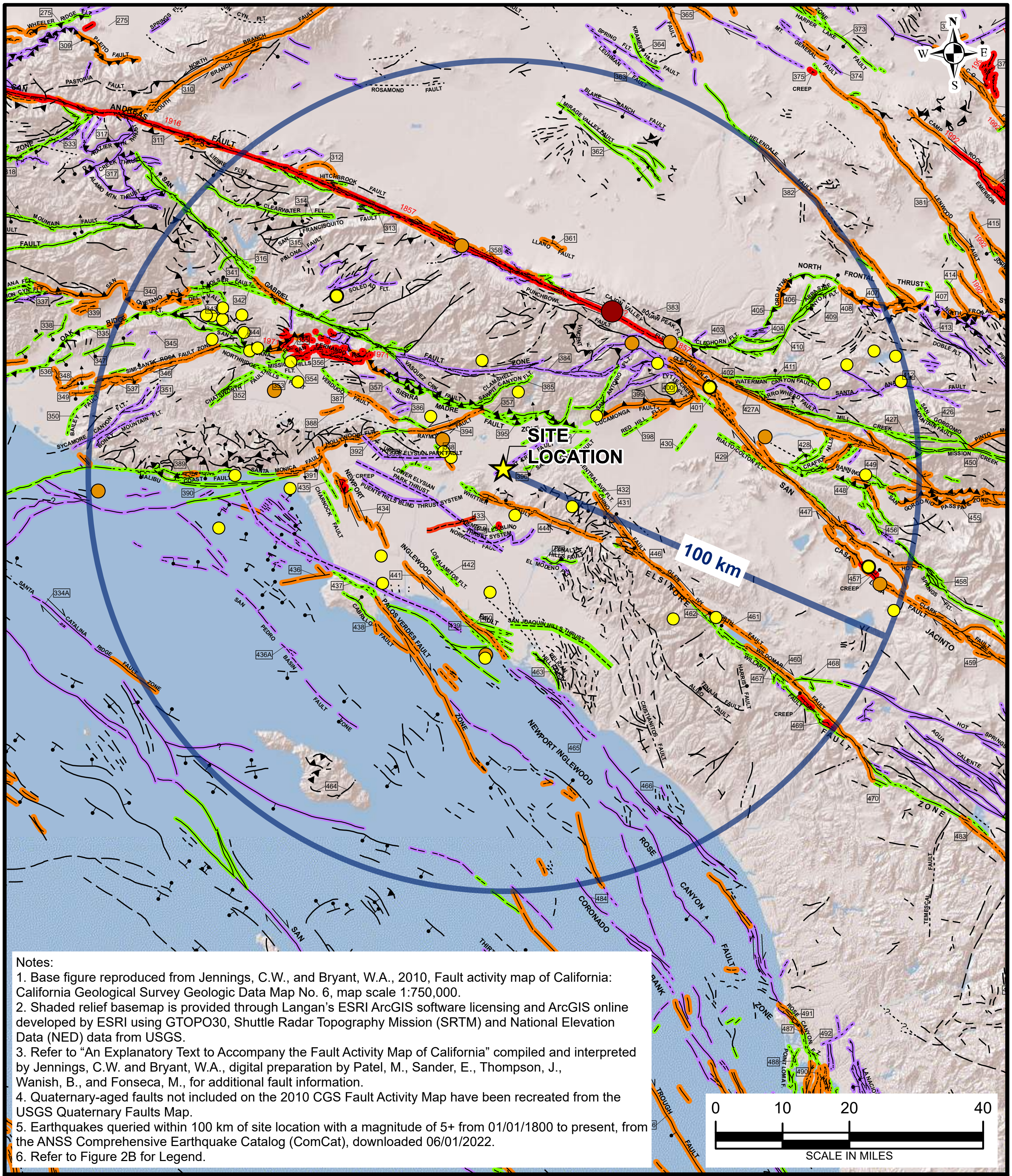

Notes:
1. Base figure reproduced from Jennings, C.W., and Bryant, W.A., 2010, Fault activity map of California: California Geological Survey Geologic Data Map No. 6, map scale 1:750,000.
2. Shaded relief basemap is provided through Langan's ESRI ArcGIS software licensing and ArcGIS online developed by ESRI using GTOPO30, Shuttle Radar Topography Mission (SRTM) and National Elevation Data (NED) data from USGS.
3. Refer to "An Explanatory Text to Accompany the Fault Activity Map of California" compiled and interpreted by Jennings, C.W. and Bryant, W.A., digital preparation by Patel, M., Sander, E., Thompson, J., Wanish, B., and Fonseca, M., for additional fault information.
4. Quaternary-aged faults not included on the 2010 CGS Fault Activity Map have been recreated from the USGS Quaternary Faults Map.
5. Earthquakes queried within 100 km of site location with a magnitude of 5+ from 01/01/1800 to present, from the ANSS Comprehensive Earthquake Catalog (ComCat), downloaded 06/01/2022.
6. Refer to Figure 2B for Legend.

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Project	Figure Title	Project No.	Figure
16008 AMAR ROAD CITY OF INDUSTRY LOS ANGELES COUNTY CALIFORNIA	QUATERNARY FAULT ACTIVITY AND EARTHQUAKE EPICENTER MAP	700117701 Date: JUNE 2022 Scale: 1 inch = 20 miles Drawn By: TO	2A

LEGEND:

☆ Site Location

Fault Age

🟥 Historic

🟧 Holocene

🟩 Late Quaternary

🟪 Early Quaternary

⬛ Pre-Quaternary Fault

☐ 100 km Search Radius

Earthquake Epicenter

🟡 Magnitude 5.0 to 5.9

🟠 Magnitude 6.0 to 6.9

🔴 Magnitude 7.0 to 7.4

● Magnitude 7.5 to 8.0

Fault Symbols

⊥ Bar and ball on downthrown side (relative or apparent).

⇄ Relative or apparent direction of lateral movement.

↑ Direction of dip.

▼ Low angle fault (barbs on upper plate). Fault surface generally dips less than 45° but locally may have been subsequently steepened.

491 Numbers refer to annotations listed in the appendices of the accompanying report.

-·-·- Structural discontinuity (offshore) separating differing Neogene structural domains.

▨ Brawley Seismic Zone.

Fault Classification

═ Fault along which historic (last 200 years) displacement has occurred and is associated with one or more of the following:
(a) a recorded earthquake with surface rupture. (Also included are some well-defined surface breaks caused by ground shaking during earthquakes, e.g. extensive ground breakage, not on the White Wolf fault, caused by the Arvin-Tehachapi earthquake of 1952). The date of the associated earthquake is indicated. Where repeated surface ruptures on the same fault have occurred, only the date of the latest movement may be indicated, especially if earlier reports are not well documented as to location of ground breaks.
(b) fault creep slippage - slow ground displacement usually without accompanying earthquakes.
(c) displaced survey lines.

1906 ▶
1906 ▷
A triangle to the right or left of the date indicates termination point of observed surface displacement. Solid red triangle indicates known location of rupture termination point. Open black triangle indicates uncertain or estimated location of rupture termination point.

▶1906◀ Date bracketed by triangles indicates local fault break.

1906 No triangle by date indicates an intermediate point along fault break.

CREEP Fault that exhibits fault creep slippage. Hachures indicate linear extent of fault creep. Annotation (creep with leader) indicates representative locations where fault creep has been observed and recorded.

1906 ■
1906 ■
Square on fault indicates where fault creep slippage has occurred that has been triggered by an earthquake on some other fault. Date of causative earthquake indicated. Squares to right and left of date indicate terminal points between which triggered creep slippage has occurred (creep either continuous or intermittent between these end points).

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Project	Figure Title	Project No.	Figure
16008 AMAR ROAD CITY OF INDUSTRY LOS ANGELES COUNTY CALIFORNIA	QUATERNARY FAULT ACTIVITY AND EARTHQUAKE EPICENTER MAP	721034501 Date: JUNE 2022 Scale: NOT TO SCALE Drawn By: TO	2B

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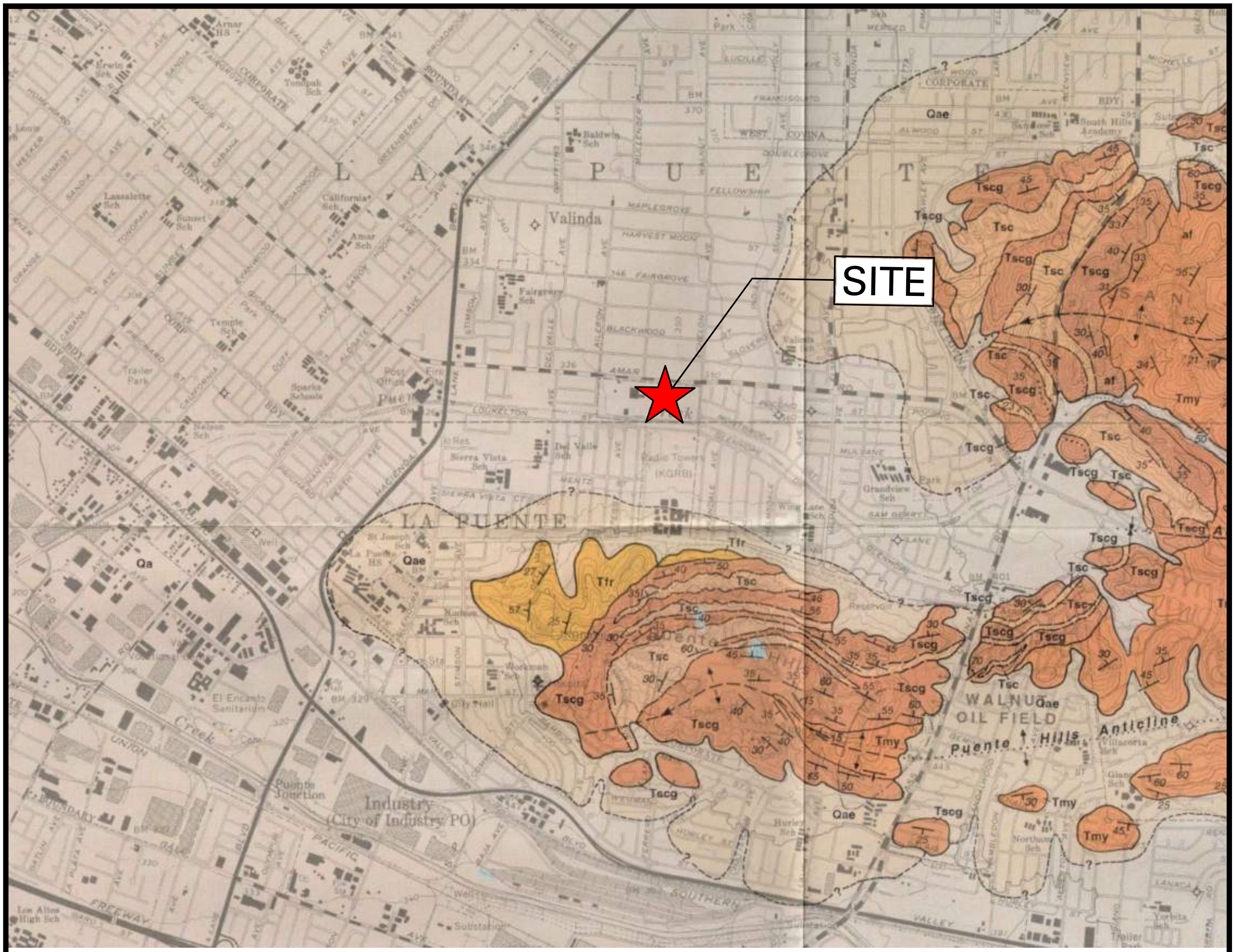

LEGEND:

Qa / Qg / af	**Qg**	GRAVEL AND SAND	Tfsc / Tfps / Tfp / Tfs / Tfr	**Tfsc**	NONMARINE SANDSTONE AND CONGLOMERATE
	Qa	ALLUVIAL GRAVEL, SAND AND SILT		**Tfps**	SILTY SANDSTONE FACIES
	Qof	ALLUVIAL FAN SEDIMENTS		**Tfp**	"PICO" CLAYSTONE
Qof / Qae / Qoa / Qog	**Qae**	ALLUVIAL GRAVEL AND SAND		**Tfs**	SANDSTONE FACIES OF FERNANDO FORMATION
	Qoa	REMNANTS OF ALLUVIAL SAND AND GRAVEL		**Tfr**	"REPETTO" CLAYSTONE MEMBER
	Qog	REMNANTS OF ALLUVIAL GRAVEL	Tsc / Tscg	**Tsc**	GRAY SILTY CLAY SHALE
				Tscg	CONGLOMERATE AND SANDSTONE

3000 1500 0 3000

SCALE IN FEET

NOTES:

1. REFERENCE: GEOLOGIC MAP OF THE EL MONTE AND BALDWIN PARK QUADRANGLES, BY THOMAS W. DIBBLEE, JR., 1999.

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GEOLOGIC MAP

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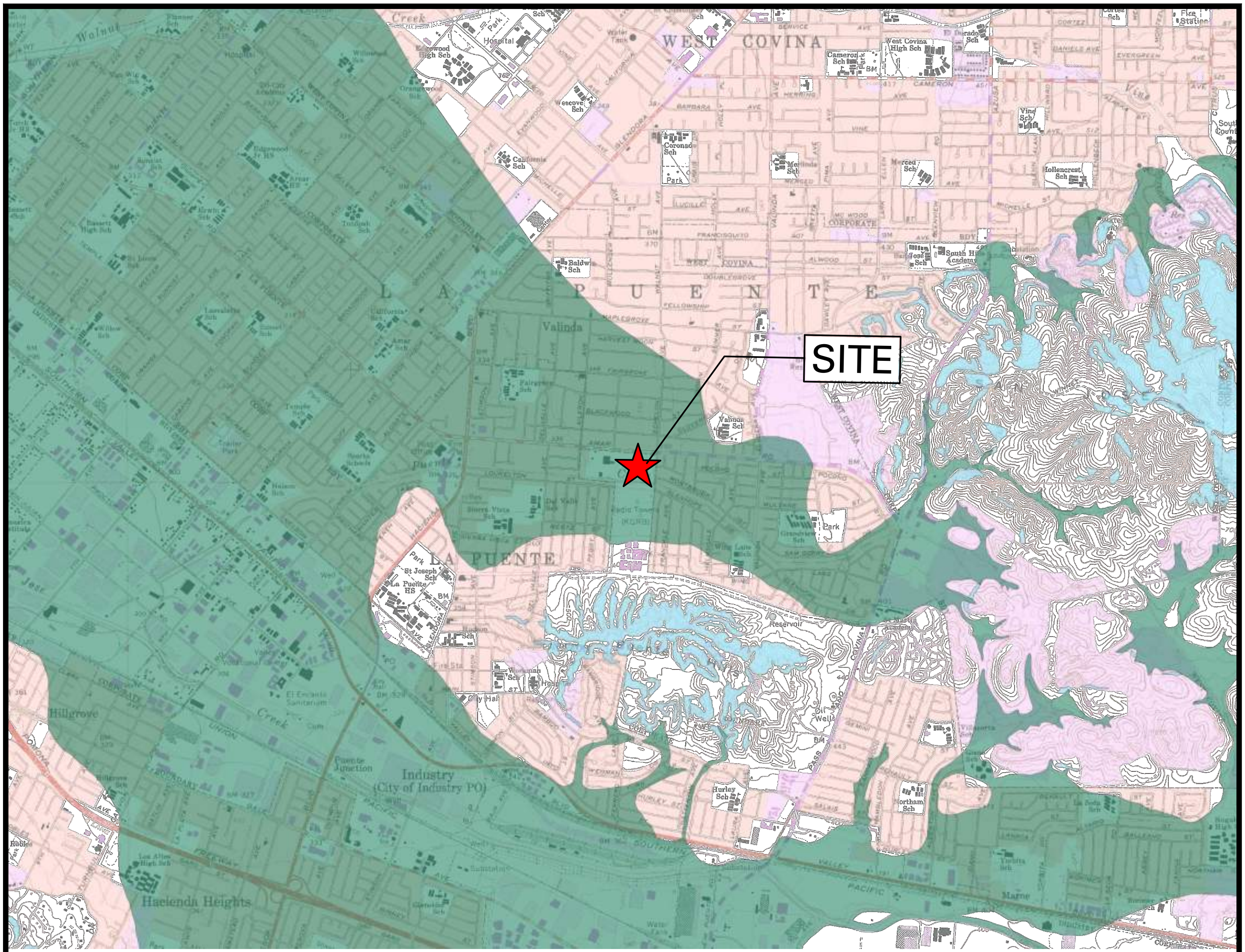

LEGEND:

🟩 **Liquefaction Zones**
Areas where historical occurrence of liquefaction, or local geological, geotechnical and ground water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

🟦 **Earthquake-Induced Landslide Zones**
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

N

NOTES:

1. EARTHQUAKE ZONES OF REQUIRED INVESTIGATION MAP REFERENCED FROM CALIFORNIA GEOLOGICAL SURVEY, EARTHQUAKE ZONES OF REQUIRED INVESTIGATION BALDWIN PARK QUADRANGLE, RELEASED 15 MARCH, 1999.

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16008 AMAR ROAD CITY OF INDUSTRY LOS ANGELES COUNTY CALIFORNIA	**EARTHQUAKE ZONES OF REQUIRED INVESTIGATION**	700117701 Date: JUNE 2022 Scale: AS SHOWN Drawn By: RF	4

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LEGEND:

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

▨ FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

▩ OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

☐ OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

▨ COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

▨ OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

———	1% annual chance floodplain boundary
———	0.2% annual chance floodplain boundary
— — —	Floodway boundary
– —— —— –	Zone D boundary
●●●●●●●●●●●●●●●●	CBRS and OPA boundary
▬ ←	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
~~ 513 ~~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

(A)———(A)	Cross section line
(23)- - - - - - - -(23)	Transect line
97°07'30", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
$^{42}75^{000m}$N	1000-meter Universal Transverse Mercator grid values, zone 11
6000000 FT	5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

NOTES:

1. FLOOD MAP REFERENCED FROM FLOOD INSURANCE RATE MAP #06037C1695F AND #06037C1700F DATED 26 SEPTEMBER 2008.

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FLOOD MAP

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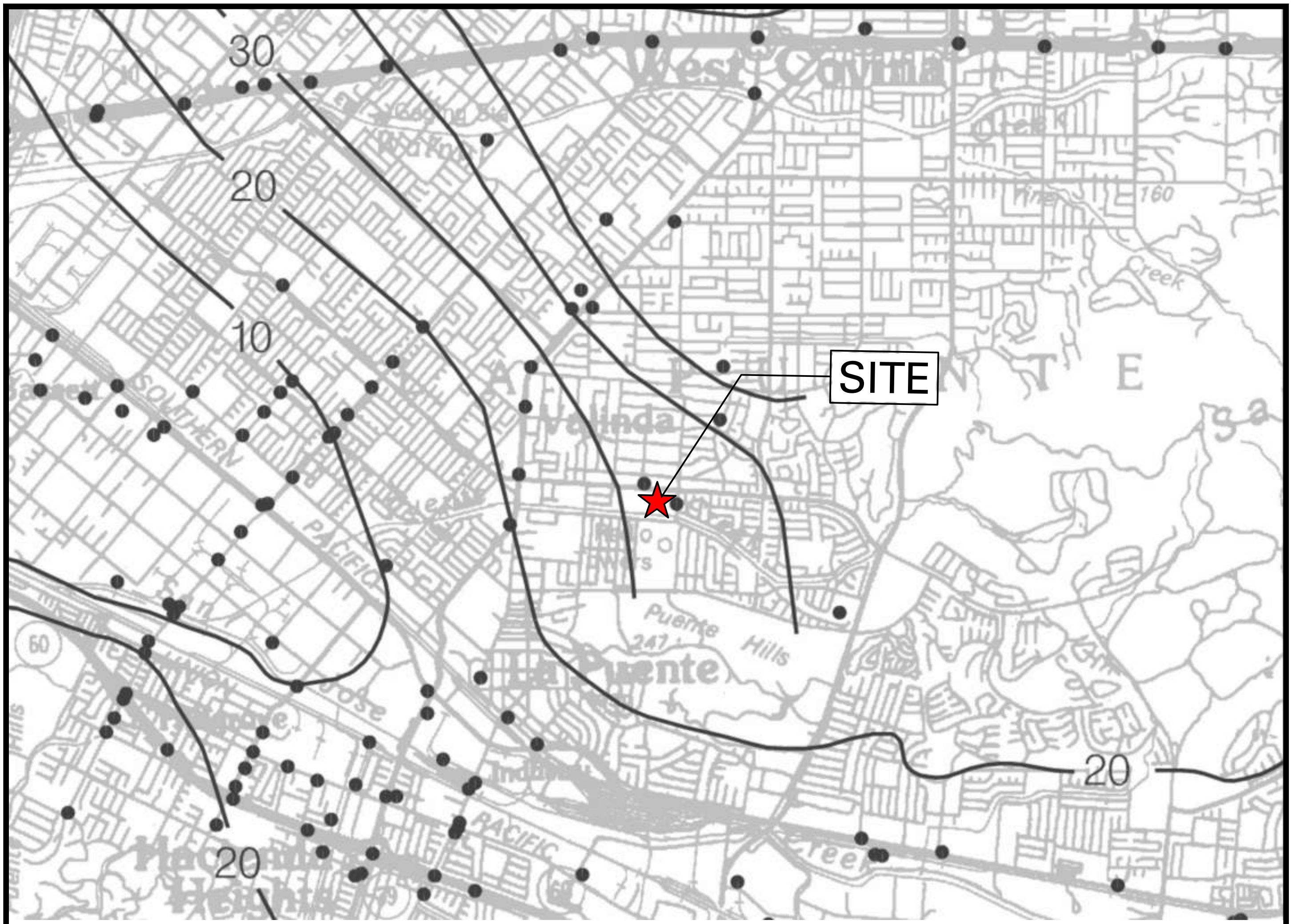

LEGEND:

30 Depth to ground water In feet

NOTES:

1. HISTORICAL HIGHEST GROUNDWATER MAP REFERENCED FROM SEISMIC HAZARD ZONE REPORT FOR THE BALDWIN PARK 7.5-MINUTE QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA, 1998

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HISTORICAL HIGHEST GROUNDWATER MAP

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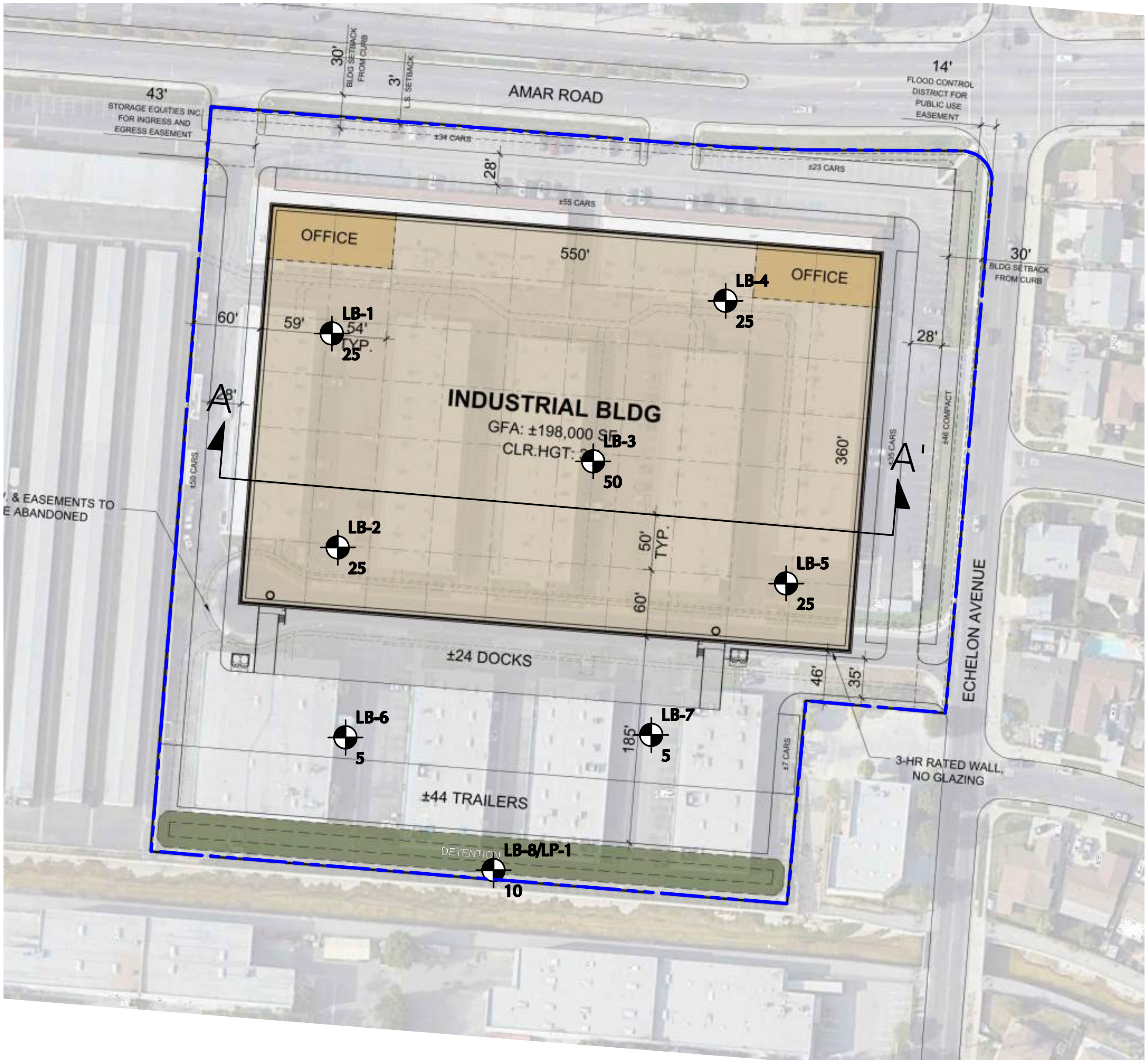

LEGEND:

LB1 25	LANGAN BORING LOCATIONS AND DEPTH IN FEET.
— - —	APPROXIMATE SITE LIMITS
A A'	CROSS SECTIONS
▨	PROPOSED INDUSTRIAL BUILDING

NOTES:

1. SITE LIMITS REFERENCED FROM CONCEPTUAL SITE PLAN BY WARE MALCOMB DATED 30 MARCH 2022.
2. BORINGS DRILLED BY ABC DRILLING ON 16 MAY 2022 UNDER FULL TIME OBSERVATION OF A LANGAN FIELD ENGINEER.
3. BORING LOCATION ARE APPROXIMATE.
4. BACKGROUND IMAGE REFERENCED FROM BING MAP ON 19 MAY, 2022.

150 0 75 150

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BORING LOCATION MAP

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CROSS SECTION A-A'

LEGEND:

——— EXISTING GROUND SURFACE LEVEL

■ ASPHALT CONCRETE

▨ CL (CLAY)

● AGGREGATE BASE

▥ SM (silty SAND)

░ SP (SAND)

▩ FILL

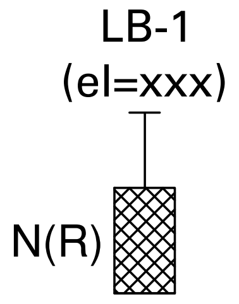
▥ ML (SILT)

▨ SC (clayey SAND)

LB-1 (el=xxx) BORING ID AND ELEVATION (NAVD88)

N SPT BLOWCOUNT: THE NUMBER OF BLOWS OF A 140 POUND AUTOMATIC HAMMER FREE FALLING FROM A HEIGHT OF 30 INCHES NEEDED TO DRIVE A 2-INCH OUTER DIAMETER SPLIT SPOON SAMPLER 12 INCHES AFTER AN INITIAL PENETRATION OF 6 INCHES, OR UNTIL REFUSAL IS ENCOUNTERED.

N(R) CALIFORNIA MODIFIED SPLIT-SPOON SAMPLER BLOWCOUNT: THE NUMBER OF BLOWS OF A 140 POUND AUTOMATIC HAMMER FREE FALLING FROM A HEIGHT 30 INCHES NEEDED TO DRIVE A 3-INCH OUTER DIAMETER CALIFORNIA MODIFIED SAMPLER 12 INCHES AFTER 6 INCHES OF INITIAL PENETRATION, OR UNTIL REFUSAL IS ENCOUNTERED.



NOTES:

1. THE FIGURE SHOWS GENERALIZED SUBSURFACE CONDITIONS AT THE RESPECTIVE BORINGS. VARIATIONS IN CONDITIONS SHOULD BE EXPECTED BETWEEN BORINGS. FOR A DETAILED DESCRIPTION OF CONDITIONS ENCOUNTERED REFER TO BORING LOGS.
2. EXISTING TOPO AND BORING ELEVATIONS REFERENCED FROM GOOGLE EARTH ON 20 MAY 2022.
3. LANGAN BORINGS LB-1 THROUGH LB-8 WERE DRILLED BY ABC DRILLING ON 16 MAY 2022, UNDER FULL-TIME ENGINEERING OBSERVATION OF A LANGAN FIELD ENGINEER.
4. SEE FIGURE 7 FOR LOCATION OF CROSS-SECTION WITH RESPECT TO SITE PLAN

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Drawing Title
CROSS SECTION A-A′

Project No.
700117701
Date
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APPENDIX A
Summary of Reported Earthquake Events

TABLE A.1 - USGS ANSS COMPREHENSIVE CATALOG SEARCH RESULTS

Date	Latitude	Longitude	Approximate Magnitude	Magnitude Type	Approximate Distance from Site (km)
3/29/2014	33.9325	-117.9158	5.10	mw	12
7/29/2008	33.9485	-117.7663	5.44	mw	18
10/16/1999	34.2400	-117.0400	5.60	mb	85
4/26/1997	34.3690	-118.6700	5.07	ml	77
6/26/1995	34.3940	-118.6690	5.02	ml	78
3/20/1994	34.2310	-118.4750	5.24	ml	54
1/29/1994	34.3060	-118.5790	5.06	ml	66
1/19/1994	34.3780	-118.6190	5.07	ml	73
1/19/1994	34.3790	-118.7120	5.06	ml	81
1/18/1994	34.3770	-118.6980	5.24	ml	80
1/17/1994	34.3260	-118.6980	5.58	ml	77
1/17/1994	34.3400	-118.6140	5.20	ml	71
1/17/1994	34.2750	-118.4930	5.89	ml	58
1/17/1994	34.2130	-118.5370	6.70	mw	59
8/17/1992	34.1950	-116.8630	5.23	ml	100
6/28/1992	34.2550	-116.9120	5.26	ml	97
6/28/1991	34.2700	-117.9930	5.80	mw	27
2/28/1990	34.1440	-117.6970	5.51	ml	25
12/3/1988	34.1510	-118.1300	5.02	ml	22
10/4/1987	34.0740	-118.0980	5.25	ml	16
10/1/1987	34.0610	-118.0790	5.90	mw	13
1/1/1979	33.9165	-118.6872	5.21	ml	70
2/9/1971	34.4160	-118.3700	5.30	mh	58
2/9/1971	34.4160	-118.3700	5.80	mh	58
2/9/1971	34.4160	-118.3700	5.80	mh	58
2/9/1971	34.4160	-118.3700	6.60	mw	58
9/12/1970	34.2548	-117.5343	5.22	ml	44
8/29/1943	34.2680	-116.9678	5.28	ml	93
11/14/1941	33.7907	-118.2637	5.12	ml	41
5/31/1938	33.6993	-117.5112	5.23	ml	54
3/11/1933	33.8500	-118.2660	5.00	ml	37
3/11/1933	33.6238	-118.0012	5.29	mh	46
3/11/1933	33.7667	-117.9850	5.02	mh	30
3/11/1933	33.6308	-117.9995	6.40	mw	45
8/31/1930	34.0300	-118.6430	5.25	ms	65
1/16/1930	34.2000	-116.9000	5.10	uk	97
1/16/1930	34.2000	-116.9000	5.25	ms	97
8/4/1927	34.0000	-118.5000	5.30	uk	52
7/23/1923	34.0890	-117.2590	6.21	mw	63
6/6/1918	33.8000	-117.0000	5.00	ml	90
4/21/1918	33.7620	-116.9720	6.70	mw	94
5/15/1910	33.7000	-117.4000	5.30	mw	62
5/13/1910	33.7000	-117.4000	5.00	ml	62
4/11/1910	33.7000	-117.4000	5.00	ml	62
9/20/1907	34.2000	-117.1000	5.30	mw	79

Notes:

1. The listed Earthquake Catalog Search results obtained from USGS ANSS Comprehensive Catalog on 19 May 2022.
2. Earthquake Catalog search results include earthquake events within 100 km of the Site with magnitudes of 5.0 or greater since 1900.

APPENDIX B
Boring Logs

LANGAN

Log of Boring **LB-1** Sheet 1 of 1

Project Industrial Development Site		Project No. 700117701	
Location 16008 Amar Rd, City of Industry, CA		Elevation and Datum Approx, 333 ft (Referenced from Google Earth)	
Drilling Company ABC Liovin Drilling		Date Started 05/17/2022	Date Finished 05/17/2022
Drilling Equipment CME-75 Truck Mounted Drill		Completion Depth 26.5 ft	Rock Depth -
Size and Type of Bit 8-in O.D. Hollow Stem Auger		Number of Samples	Disturbed 5 | Undisturbed - | Core -
Casing Diameter (in) -	Casing Depth (ft) -	Water Level (ft.)	First ▽ - | Completion ▼ - | 24 HR. ▼ -
Casing Hammer - | Weight (lbs) -	Drop (in) -	Drilling Foreman Raul	
Sampler 2-in O.D. split spoon; 3-in O.D. Cal Mod.		Field Engineer Alexander Corob	
Sampler Hammer Automatic | Weight (lbs) 140	Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
333.0		0						Started Drilling at 5/17/2022 7:12 AM
332.7	3.5-inch Asphalt.							
332.3	5-inch Aggregate Base.							
	Brown, clayey fine to medium SAND, trace silt, (SC), moist.	2						
	Dark brown, sandy CLAY, (CL), moist.							
329.0	Very stiff, dark brown, sandy CLAY, trace silt, (CL), moist.	4						
		6	S-1	CR	18	4 10 14	24	
		8						
	Very stiff, dark brown sandy CLAY, trace silt, (CL), moist.	10	S-2	SS	18	5 12 15	27	
320.5		12						
		14						
	Very dense, brown, clayey fine to medium SAND, trace silt, trace fine gravel, (SC), moist.	16	S-3	CR	18	6 24 40	64	
		18						
	Medium dense, light brown, clayey fine SAND, trace silt, (SC), moist.	20	S-4A	SS	18	4 7 8	15	
312.0	Medium dense, light brown, silty fine SAND, trace clay, (SM), moist.		S-4B					
		22						
		24						
	Very dense, light brown, silty fine SAND, (SM), dry.		S-5A	CR	18	6 26 37	63	
307.3	Very dense, light brown, fine to medium SAND, trace silt, (SP), dry.	26	S-5B					
306.5	End of Boring at 26.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.							Bottom of boring at 5/17/2022 8:29 AM
		28						
		30						

LANGAN

Log of Boring **LB-2** Sheet 1 of 1

Project: Industrial Development Site		Project No.: 700117701	
Location: 16008 Amar Rd, City of Industry, CA		Elevation and Datum: Approx, 332 ft (Referenced from Google Earth)	
Drilling Company: ABC Liovin Drilling		Date Started: 05/17/2022	Date Finished: 05/17/2022
Drilling Equipment: CME-75 Truck Mounted Drill		Completion Depth: 26.5 ft	Rock Depth: -
Size and Type of Bit: 8-in O.D. Hollow Stem Auger		Number of Samples: Disturbed 5; Undisturbed -; Core -	
Casing Diameter (in): -	Casing Depth (ft): -	Water Level (ft.): First ▽ -; Completion ▼ -; 24 HR. ▼ -	
Casing Hammer: -	Weight (lbs): -; Drop (in): -	Drilling Foreman: Raul	
Sampler: 2-in O.D. split spoon; 3-in O.D. Cal Mod.			
Sampler Hammer: Automatic	Weight (lbs): 140; Drop (in): 30	Field Engineer: Alexander Corob	

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+332.0		0						Started Drilling at 5/17/2022 8:35 AM
+331.7	4-inch Asphalt.							
+331.2	6-inch Aggregate Base.							
+328.0		4						
	Stiff, dark brown, CLAY, trace silt, trace fine sand, (CL), moist.	6	S-1	SS	18	3 6 7	13	
+324.5								
	Very stiff, brown, sandy SILT, some clay, (ML), moist.	10	S-2	CR	18	4 12 16	28	
	Very stiff, brown, sandy SILT, trace clay, (ML), moist.	16	S-3	SS	18	5 8 10	18	
+314.5								
	Very dense, orangish brown, silty fine to medium SAND, (SM), moist.	20	S-4	CR	18	10 20 44	64	
+309.5								
	Dense, orangish brown, fine to medium SAND, trace silt, (SP), dry.	26	S-5	SS	18	9 13 19	32	
+305.5	End of Boring at 26.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.							Bottom of boring at 5/17/2022 9:50 AM

LANGAN

Log of Boring **LB-3** Sheet 1 of 2

Project Industrial Development Site	Project No. 700117701
Location 16008 Amar Rd, City of Industry, CA	Elevation and Datum Approx, 333 ft (Referenced from Google Earth)
Drilling Company ABC Liovin Drilling	Date Started 05/16/2022 Date Finished 05/16/2022
Drilling Equipment CME-75 Truck Mounted Drill	Completion Depth 51.5 ft Rock Depth -
Size and Type of Bit 8-in O.D. Hollow Stem Auger	Number of Samples: Disturbed 11; Undisturbed -; Core -
Casing Diameter (in) - Casing Depth (ft) -	Water Level (ft.): First ▽ -; Completion ▼ -; 24 HR. ▼ -
Casing Hammer - Weight (lbs) - Drop (in) -	Drilling Foreman Raul
Sampler 2-in O.D. split spoon; 3-in O.D. Cal Mod.	
Sampler Hammer Automatic Weight (lbs) 140 Drop (in) 30	Field Engineer Alexander Corob

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+333.0		0						Started Drilling at 5/16/2022 8:33 AM
+332.6	5-inch Asphalt.							
+332.3	4-inch Aggregate Base.							
	Dark brown, silty CLAY, trace fine sand, (CL), moist.	2	B-1	BAG				
+329.0	Very stiff, brown, sandy CLAY, trace silt, (CL), moist.	4						
		6	S-1	CR	18	5 11 14	25	
+325.5	Medium dense, brown, clayey fine to medium SAND, some silt, (SC), moist.	8						
		10	S-2	SS	18	6 8 12	20	
+320.5	Dense, brown, silty fine to medium SAND, (SM), moist.	12						
		16	S-3	CR	18	16 23 17	40	
	Medium dense, brown, silty fine to medium SAND, (SM), moist.	20	S-4	SS	18	8 10 12	22	
	Very dense, brown, silty fine to medium SAND, (SM), moist.	26	S-5A S-5B	CR	18	12 30 40	70	
+306.8	Very dense, brown, fine to coarse SAND, trace silt, (SP), dry.							
+305.5		28						
		30						

Log of Boring **LB-3** Sheet 2 of 2

Project Industrial Development Site	Project No. 700117701
Location 16008 Amar Rd, City of Industry, CA	Elevation and Datum Approx, 333 ft (Referenced from Google Earth)

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+303.0	Dense, brown, silty fine to medium SAND, (SM), dry.	30	S-6	SS	18	19 18 23	41	
+300.5	Hard, brown, sandy SILT, (ML), moist.	32 34 36	S-7A	CR	18	13 23 46	69	
+296.8	Very dense, brown, silty fine to medium SAND, (SM), moist.		S-7B					
+295.5	Dense, brown, clayey fine to medium SAND, trace silt, (SC), moist.	38 40	S-8	SS	18	5 14 19	33	
+290.5	Hard, brown, sandy SILT, trace clay, (ML), moist.	42 44 46	S-9A	CR	18	8 21 28	49	
+287.3	Dense, brown, silty fine to medium SAND, trace clay, (SM), moist.		S-9B					
+285.5	Very stiff, brown, silty CLAY, trace gravel, mottled black spots, (CL), wet.	48 50	S-10	SS	18	4 8 11	19	
+281.5	End of Boring at 51.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.	52 54 56 58 60 62 64 66 67.5						Bottom of boring at 5/16/2022 10:50 AM

LANGAN

Log of Boring **LB-4** Sheet 1 of 1

Project	Industrial Development Site	Project No.	700117701
Location	16008 Amar Rd, City of Industry, CA	Elevation and Datum	Approx, 335 ft (Referenced from Google Earth)
Drilling Company	ABC Liovin Drilling	Date Started / Date Finished	05/16/2022 / 05/16/2022
Drilling Equipment	CME-75 Truck Mounted Drill	Completion Depth / Rock Depth	26.5 ft / -
Size and Type of Bit	8-in O.D. Hollow Stem Auger	Number of Samples	Disturbed 5; Undisturbed -; Core -
Casing Diameter (in)	-; Casing Depth (ft) -	Water Level (ft.)	First ▽ -; Completion ▼ -; 24 HR. ▽ -
Casing Hammer	-; Weight (lbs) -; Drop (in) -	Drilling Foreman	Raul
Sampler	2-in O.D. split spoon; 3-in O.D. Cal Mod.	Field Engineer	Alexander Corob
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+335.0 +334.7	4-inch Asphalt.	0						Started Drilling at 5/16/2022 2:14 PM
+334.4	3-inch Aggregate Base.							
	Brown, sandy CLAY, trace silt, (CL), moist.							
+331.0	Stiff, brown, sandy CLAY, trace silt, (CL), moist.	6	S-1	SS	18	3 5 8	13	
+327.5	Dense, orangish brown, clayey fine to coarse SAND, trace silt, trace fine gravel, (SC), moist.	10	S-2	CR	18	5 17 23	40	
+322.5	Medium dense, orangish brown, silty fine to medium SAND, trace clay, (SM), moist.	16	S-3	SS	18	5 5 7	12	
	Very dense, orangish brown, silty fine to medium SAND, (SM), moist.	20	S-4	CR	18	12 23 36	59	
	Medium dense, orangish brown, silty fine to medium SAND, (SM), moist.	26	S-5	SS	18	7 9 10	19	
+308.5	End of Boring at 26.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.							Bottom of boring at 5/16/2022 3:20 PM

LANGAN Log of Boring **LB-5** Sheet 1 of 1

Project	Industrial Development Site	Project No.	700117701
Location	16008 Amar Rd, City of Industry, CA	Elevation and Datum	Approx, 334 ft (Referenced from Google Earth)
Drilling Company	ABC Liovin Drilling	Date Started / Date Finished	05/16/2022 / 05/16/2022
Drilling Equipment	CME-75 Truck Mounted Drill	Completion Depth / Rock Depth	26.5 ft / -
Size and Type of Bit	8-in O.D. Hollow Stem Auger	Number of Samples	Disturbed 5; Undisturbed -; Core -
Casing Diameter (in) / Casing Depth (ft)	- / -	Water Level (ft.)	First ▽ -; Completion ▼ -; 24 HR. ▽ -
Casing Hammer / Weight (lbs) / Drop (in)	- / - / -	Drilling Foreman	Raul
Sampler	2-in O.D. split spoon; 3-in O.D. Cal Mod.		
Sampler Hammer / Weight (lbs) / Drop (in)	Automatic / 140 / 30	Field Engineer	Alexander Corob

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+334.0		0						Started Drilling at 5/16/2022 1:05 PM
+333.7	4-inch Asphalt.							
+333.4	3-inch Aggregate Base.							
	Brown sandy CLAY, trace silt, (CL), moist.							
	Very stiff, brown sandy CLAY, trace silt, (CL), moist.	6	S-1	CR	18	6 11 17	28	
+326.5	Medium dense, brown, silty fine to coarse SAND, trace clay, (SM), moist.	10	S-2	SS	18	6 8 11	19	
	Medium dense, brown, silty fine to medium SAND, trace clay, (SM), moist.	16	S-3	CR	18	4 10 19	29	
+316.5	Dense, brown, fine to medium SAND, trace silt, (SP), dry.	20	S-4	SS	18	8 18 20	38	
+311.5	Dense, brown, silty fine to medium SAND, (SM), moist.	26	S-5	CR	18	10 18 23	41	
+307.5	End of Boring at 26.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.	28						Bottom of boring at 5/16/2022 2:07 PM
		30						

LANGAN

Log of Boring **LB-6** Sheet 1 of 1

Project: Industrial Development Site		Project No.: 700117701		
Location: 16008 Amar Rd, City of Industry, CA		Elevation and Datum: Approx, 332 ft (Referenced from Google Earth)		
Drilling Company: ABC Liovin Drilling		Date Started: 05/17/2022	Date Finished: 05/17/2022	
Drilling Equipment: CME-75 Truck Mounted Drill		Completion Depth: 6.5 ft	Rock Depth: -	
Size and Type of Bit: 8-in O.D. Hollow Stem Auger		Number of Samples	Disturbed: 2	Undisturbed: - Core: -
Casing Diameter (in): -	Casing Depth (ft): -	Water Level (ft.)	First ▽: -	Completion ▼: - 24 HR. ▼: -
Casing Hammer: -	Weight (lbs): - Drop (in): -	Drilling Foreman: Raul		
Sampler: 2-in O.D. split spoon; 3-in O.D. Cal Mod.				
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Field Engineer: Alexander Corob		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+332.0		0						Started Drilling at 5/17/2022 9:58 AM
+331.7	4-inch Asphalt							
+331.3	5-inch Aggregate Base							
	Dark brown, sandy CLAY, (SC).	2	B-1	BAG				
+329.0	Very stiff, brown, CLAY, trace silt, trace fine sand, (CL), moist.	4						
		6	S-1	SS	18	3 9 10	19	
+325.5	End of Boring at 6.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.							Bottom of boring at 5/17/2022 10:15 AM

Depth Scale: 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30

N-Value scale: 10 20 30 40

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Log of Boring **LB-7** Sheet 1 of 1

Project Industrial Development Site		Project No. 700117701	
Location 16008 Amar Rd, City of Industry, CA		Elevation and Datum Approx, 333 ft (Referenced from Google Earth)	
Drilling Company ABC Liovin Drilling		Date Started 05/17/2022	Date Finished 05/17/2022
Drilling Equipment CME-75 Truck Mounted Drill		Completion Depth 6.5 ft	Rock Depth -
Size and Type of Bit 8-in O.D. Hollow Stem Auger		Number of Samples: Disturbed 1; Undisturbed -; Core -	
Casing Diameter (in) -	Casing Depth (ft) -	Water Level (ft.): First ▽ -; Completion ▼ -; 24 HR. ▼ -	
Casing Hammer -; Weight (lbs) -; Drop (in) -		Drilling Foreman Raul	
Sampler 2-in O.D. split spoon; 3-in O.D. Cal Mod.		Field Engineer Alexander Corob	
Sampler Hammer Automatic; Weight (lbs) 140; Drop (in) 30			

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+333.0		0						Started Drilling at 5/16/2022 11:31 AM
+332.6	5-inch Asphalt.							
+332.3	4-inch Aggregate Base.							
	Dark brown, CLAY, trace fine sand, trace silt, (CL), moist.							
+329.0	Brown, clayey SAND, trace silt, (SC), moist.	4						
	Medium dense, brown, silty fine to medium SAND, some clay, (SC), moist.	6	S-1	SS	18	3 7 11	18	
+326.5	End of Boring at 6.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.							
		10						Bottom of boring at 5/16/2022 12:12 PM
		30						

LANGAN

Log of Boring **LB-8/LP-1** Sheet 1 of 1

Project Industrial Development Site		Project No. 700117701	
Location 16008 Amar Rd, City of Industry, CA		Elevation and Datum Approx, 333 ft (Referenced from Google Earth)	
Drilling Company ABC Liovin Drilling		Date Started 05/16/2022	Date Finished 05/16/2022
Drilling Equipment CME-75 Truck Mounted Drill		Completion Depth 8.5 ft	Rock Depth -
Size and Type of Bit 8-in O.D. Hollow Stem Auger		Number of Samples	Disturbed 1 / Undisturbed - / Core -
Casing Diameter (in) -	Casing Depth (ft) -	Water Level (ft.)	First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer - / Weight (lbs) - / Drop (in) -		Drilling Foreman Raul	
Sampler 2-in O.D. split spoon; 3-in O.D. Cal Mod.		Field Engineer Alexander Corob	
Sampler Hammer Automatic / Weight (lbs) 140 / Drop (in) 30			

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+333.0		0						Started Drilling at 5/17/2022 10:25 AM
+332.6	5-inch Asphalt.							
+332.3	4-inch Aggregate Base.							
	Dark brown, CLAY, trace fine sand, trace silt, (CL), moist.							
+329.0	Brown, clayey SAND, trace silt, (SC), moist.	4						
	Dense, brown, silty fine to medium SAND, some clay, (SC), moist.	8	S-1	SS	18	10 18 27	45	Bottom of boring at 5/17/2022 10:54 AM
+323.0	End of Boring at 10 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.	10						

\\LANGAN.COM\DATA\IRV\DATA7\700117701\PROJECT DATA_DISCIPLINE\GEOTECHNICAL\GINTLOGS\700117701_ENTERPRISE_JX.GPJ ... 6/8/2022 3:50:43 PM ... Report: Log - LANGAN

APPENDIX C
Percolation Test Results

PERCOLATION TEST DATA SHEET

Project:	16008 Amar Rd, City of Industry	Project No.:	700117701	Date:	5/17/2022
Test Hole No.:	LB-8 / LP-1	Tested By:	A. Corob	Updated:	5/25/2022
Depth of Test Hole (ft):	10	USCS Soil Classification:		CL	
PVP Pipe Dimension:	2-in I.D. x 10 ft long with 5 ft screen	Test Hole Diameter (in):		8	

Trial No.	Date	Time of Measurement	Initial Depth to Water (ft)	Time of Measurement	Final Depth to Water (ft)	Volume of Water Infiltrated (cu.in.)	Surface Area (sq.in.)	Time Interval (min)	Percolation Rate (in/hr)
Pre-Soak	5/16/2022	11:10 AM	0.00	11:20 AM	4.50				
#1 (Refill)	5/17/2022	11:20 AM	4.00	11:50 AM	4.16	0.5	4	30	0.24
#2 (Refill)	5/17/2022	11:50 AM	4.16	12:20 PM	4.27	0.3	4	30	0.18
#3 (Refill)	5/17/2022	12:20 PM	4.27	12:50 PM	4.36	0.3	4	30	0.15
#4 (Refill)	5/17/2022	12:50 PM	4.36	1:20 PM	4.45	0.3	4	30	0.15
#5 (Refill)	5/17/2022	1:20 PM	4.45	1:50 PM	4.51	0.2	4	30	0.11
#6 (Refill)	5/17/2022	1:50 PM	4.51	2:20 PM	4.57	0.2	4	30	0.11

Comments:	1. Percolation test was performed in accordance with the Boring Percolation Test Procedure provided in the "Guidelines for Design, Investigation, and Reporting - Low Impact Development Stormwater Infiltration," prepared by County of Los Angeles Department of Public Works, dated 30 June 2017. 2. Weather: Sunny and warm.	Average Stabilized Rate	0.12
		Reduction Factors $RF_t=2$, $RF_v=1$, $RF_s=1$	2.00
		Design Infiltration Rate (in/hr)	0.06

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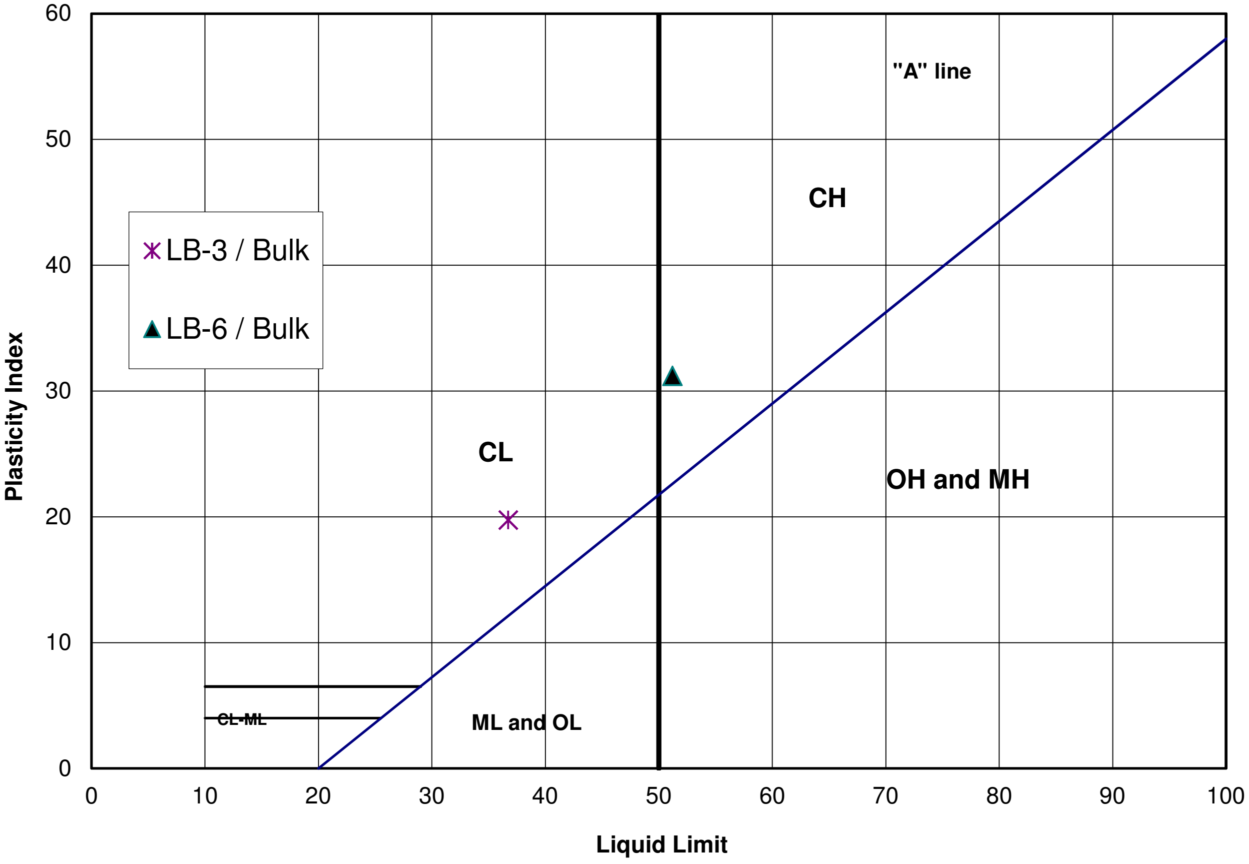
APPENDIX D
Laboratory Results

PLASTICITY INDEX _ ASTM D4318



Sample	Depth	LL	PL	PI	USCS	Material Description
LB-3 / Bulk		37	17	20	CL	
LB-6 / Bulk		51	20	31	CH	

Job Name: Langan # 700117701

Date: 6/7/22

Job No.: 2012-0057

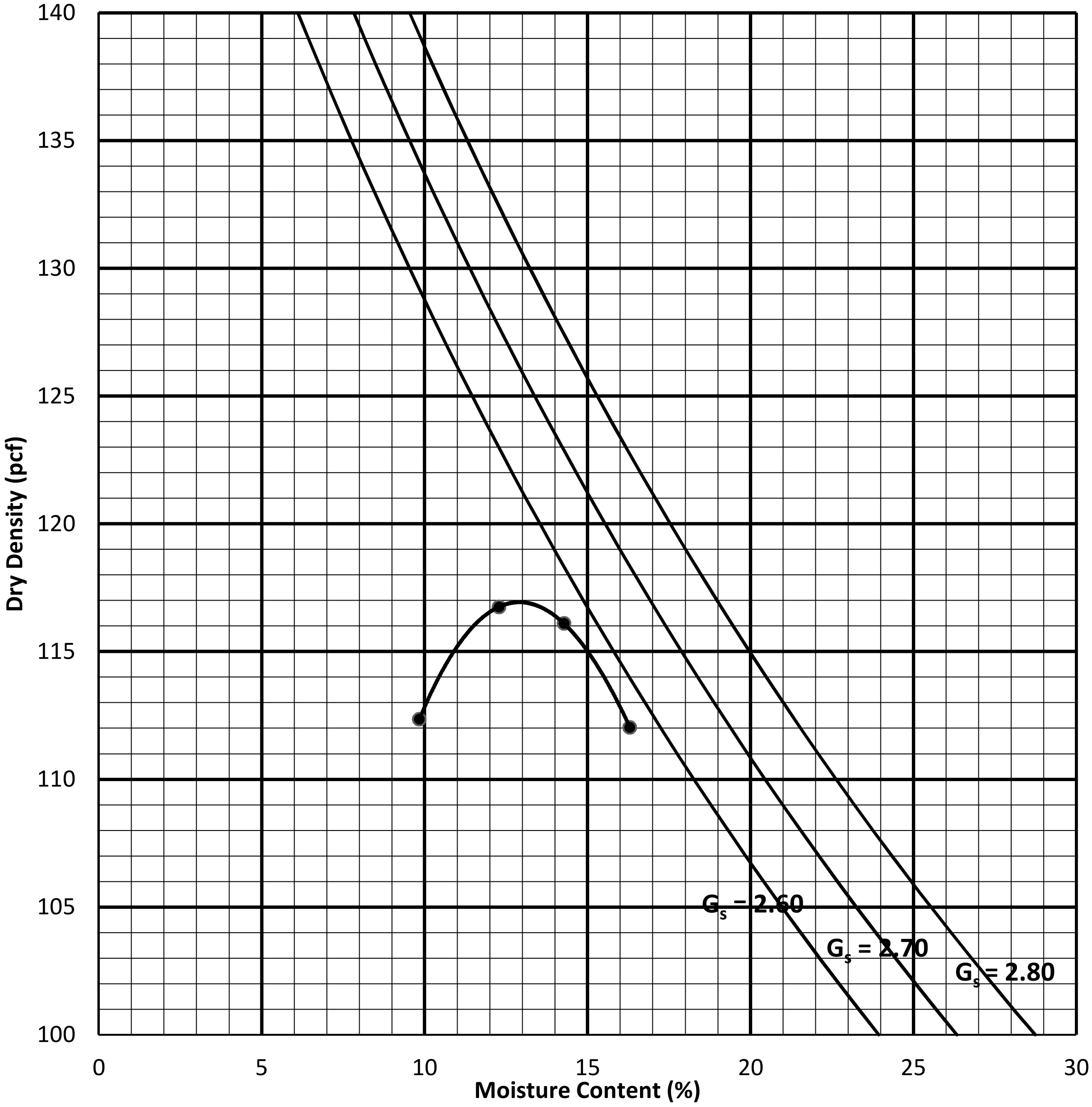
COMPACTION TEST REPORT

Project: Langan # 700117701
Sample: LB-3 / B-1
Description: Brown, Silty Clay

GLA No. 2012-0057
Date: 6/4/2022
By: LD

ASTM D1557	**Method A**	**Volume (cf): 0.03333**		**# Blows: 25**	**# Layers: 5**
Specimen		**A**	**B**	**C**	**D**
Wet Weight (grs)		1982	2006	1866	1970
Wet Density (pcf)		131.1	132.7	123.4	130.3
Moisture Content (%)		12.3	14.3	9.8	16.3
Dry Density (pcf)		116.7	116.1	112.4	112.0

Max. Dry Density : 117.0 pcf
Opt. Water Content: 13.0 %



Geo-Logic ASSOCIATES

'R' VALUE CA 301

Client: Langan

Date: 6/7/22

By: LD

Client's Job No.: 700117701

Sample : LB-6 / Bulk

GLA Reference: 2012-0057

Soil Type: Brown, Silty Clay

TEST SPECIMEN		A	B	C	D
Compactor Air Pressure	psi	**80**	**50**	**60**	
Initial Moisture Content	%	**9.9**	**9.9**	**9.9**	
Water Added	ml	**150**	**200**	**175**	
Moisture at Compaction	%	42.0	46.5	44.2	
Sample & Mold Weight	gms	**3103**	**3030**	**3093**	
Mold Weight	gms	**2102**	**2075**	**2103**	
Net Sample Weight	gms	1001	955	990	
Sample Height	in.	**2.499**	**2.485**	**2.493**	
Dry Density	pcf	85.5	79.5	83.4	
Pressure	lbs	**8925**	**3725**	**5050**	
Exudation Pressure	psi	711	297	402	
Expansion Dial	x 0.0001	**25**	**9**	**16**	
Expansion Pressure	psf	108	39	69	
Ph at 1000lbs	psi	**60**	**70**	**65**	
Ph at 2000lbs	psi	**136**	**152**	**141**	
Displacement	turns	**4.05**	**5.62**	**4.61**	
R' Value		10	2	7	
Corrected 'R' Value		**10**	**2**	**7**	

FINAL 'R' VALUE	
By Exudation Pressure (@ 300 psi):	**2**
By Epansion Pressure :	**N/A**
TI = 5	

Geo-Logic ASSOCIATES

WASH #200 SIEVE - ASTM D 1140-92

Job Name Langan # 700117701 Date 6-7-22

Job No. 2012-0057 By LD

Sample	LB-2 / S-1	**Sample**	LB-3 / S-4	**Sample**	LB-3 / S-6
Soil Type		Soil Type		Soil Type	
% water	20.2	% water	8.1	% water	10.2
Wet weight	148.9	Wet weight	222.7	Wet weight	222.8
Dry weight	123.9	Dry weight	206.0	Dry weight	202.2
+ 200 sieve	28.9	+ 200 sieve	165.7	+ 200 sieve	142.1
% Retained	23.3	% Retained	80.4	% Retained	70.3
%Pass. #200	**77**	**%Pass. #200**	**20**	**%Pass. #200**	**30**

Sample	LB-3 / S-10	**Sample**		**Sample**	
Soil Type		Soil Type		Soil Type	
% water	21.5	% water		% water	
Wet weight	166.9	Wet weight		Wet weight	
Dry weight	137.4	Dry weight		Dry weight	
+ 200 sieve	38.6	+ 200 sieve		+ 200 sieve	
% Retained	28.1	% Retained		% Retained	
%Pass. #200	**72**	**%Pass. #200**		**%Pass. #200**	

Sample		**Sample**		**Sample**	
Soil Type		Soil Type		Soil Type	
% water		% water		% water	
Wet weight		Wet weight		Wet weight	
Dry weight		Dry weight		Dry weight	
+ 200 sieve		+ 200 sieve		+ 200 sieve	
% Retained		% Retained		% Retained	
%Pass. #200		**%Pass. #200**		**%Pass. #200**	

Sample		**Sample**		**Sample**	
Soil Type		Soil Type		Soil Type	
% water		% water		% water	
Wet weight		Wet weight		Wet weight	
Dry weight		Dry weight		Dry weight	
+ 200 sieve		+ 200 sieve		+ 200 sieve	
% Retained		% Retained		% Retained	
%Pass. #200		**%Pass. #200**		**%Pass. #200**	

MOISTURE DENSITY TESTS

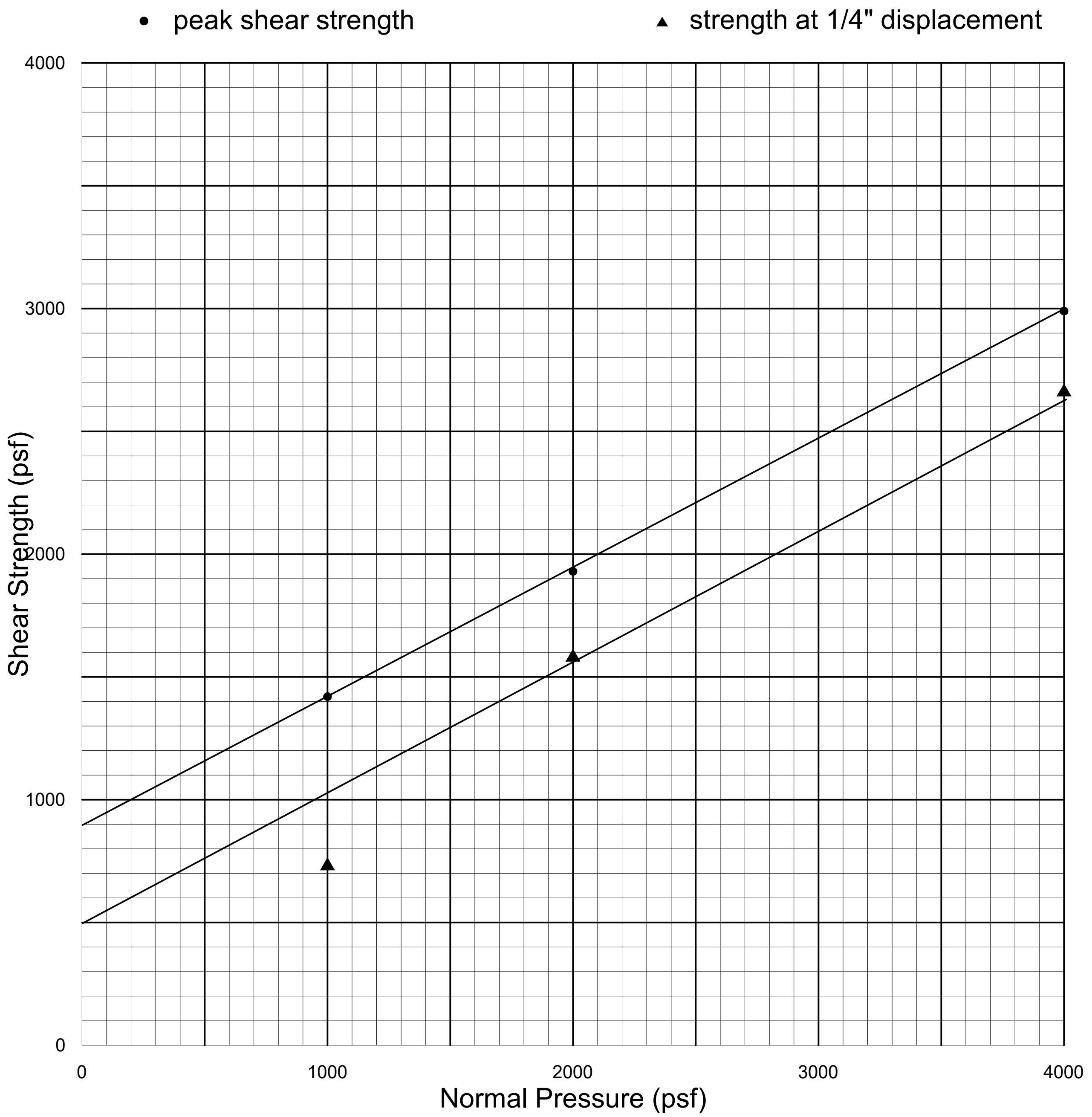
PROJECT Langan # 700117701 **JOB NO.** 2012-0057 **BY** LD **DATE** 06/07/22

Sample No.	**LB-1 / S-1**	**LB-2 / S-2**	**LB-4 / S-2**					
Depth (ft)	**4.0**	**10.0**	**10.0**					
Testing								
Soil Type	Brown, Silty Clay	Brown, Silty Clay	Brown, Silty Clay					
Wet+Tare	975.6	982.7	1022.3					
Tare	5	5	5					
Wet Weight	143.4	121.7	154.9					
Dry Weight	122.0	112.9	135.4					
Wet density	131.3	132.5	139.1					
% Water	17.5	7.8	14.4					
Dry Density	111.7	122.9	121.6					
O.B.Press(psf)								

Sample No.								
Depth (ft)								
Testing								
Soil Type								
Wet+Tare								
No. Ring								
Wet Weight								
Dry Weight								
Wet density								
% Water								
Dry Density								
O.B.Press(psf)								

Geo-Logic
ASSOCIATES

DIRECT SHEAR TEST - ASTM D-3080



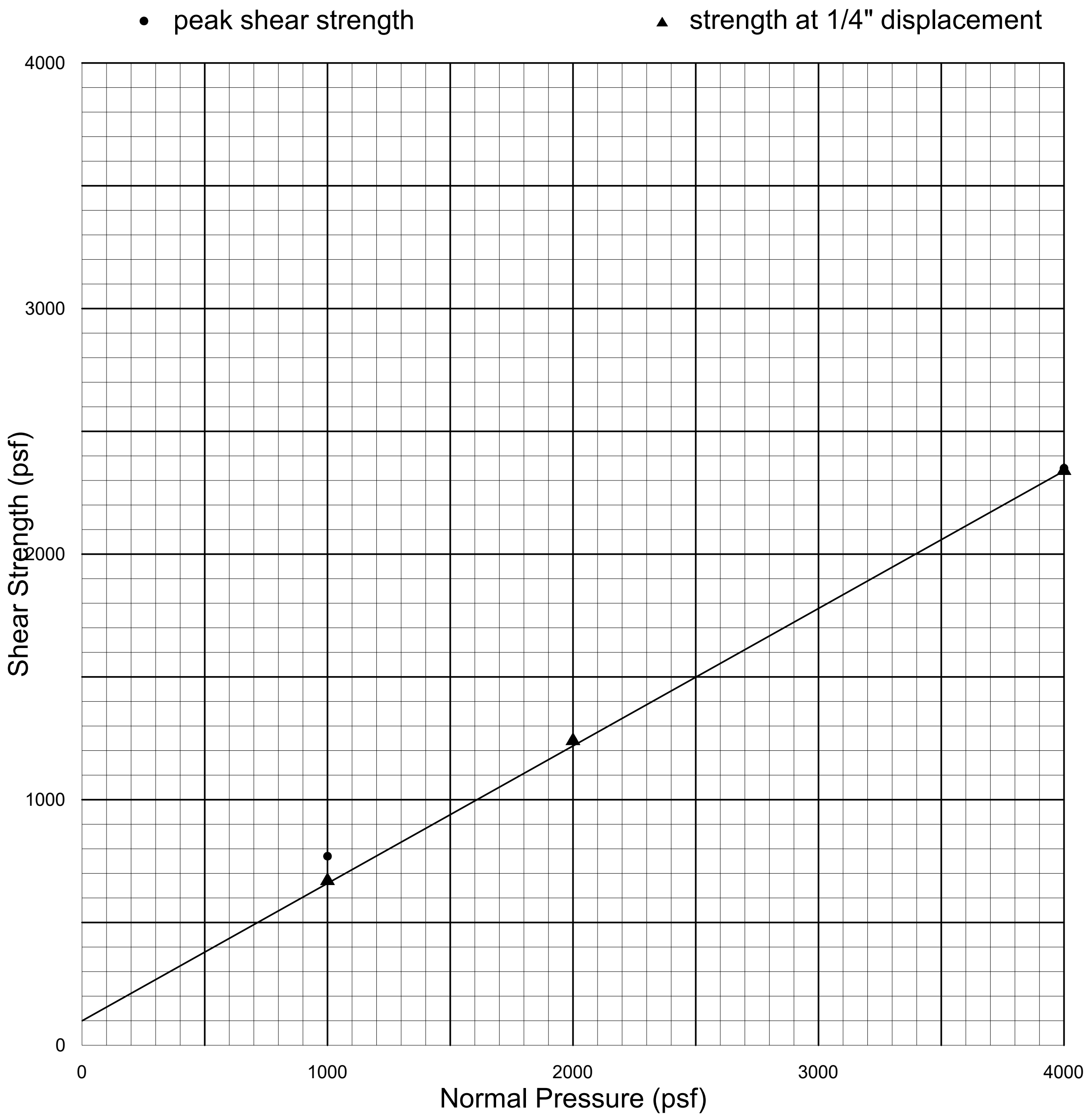
Strain Rate: 0.0042 in. / min.

Sample	**Type**	**Description**	**Dry Density (pcf)**	**Initial W.C. (%)**	**Final W.C. (%)**
LB-2/S-2	Undisturbed & Saturated	Silty Clay	122.9	7.8	25.4

Normal Pressure (psf)	Peak Shear Strength (psf)	Ultimate Shear Strength (psf)
1000	1420 @ 0.0800"	730
2000	1930 @ 0.1000"	1580
4000	2990 @ 0.1000"	2660
	C = 900 psf	C = 500 psf
	ϕ = 28 deg.	ϕ = 28 deg.

Date: 06-07-2022

DIRECT SHEAR TEST - ASTM D-3080



Strain Rate: 0.0042 in. / min.

Sample	Type	Description	Dry Density (pcf)	Initial W.C. (%)	Final W.C. (%)
LB-3/B-1	Remolded & Saturated	Silty Clay	105.3 (90% Max Density)	13.0	21.7

Normal Pressure (psf)	Peak Shear Strength (psf)	Ultimate Shear Strength (psf)
1000	770 @ 0.0255"	670
2000	1240 @ 0.1600"	1240
4000	2350 @ 0.2450"	2340
	C = 100 psf	C = 100 psf
	$\phi =$ 29 deg.	$\phi =$ 29 deg.

Date: 06-07-2022

EXPANSION INDEX - UBC 18-2 & ASTM D 4829-88

PROJECT Langan # 700117701

JOB NO. 2012-0057

Sample	LB-3 / Bulk		By	LD	Sample	LB-6 / Bulk		By	LD
Sta. No.					Sta. No.				
Soil Type	Brown, Silty Clay				Soil Type	Brown, Silty Clay			
Date	Time	Dial Reading	Wet+Tare	591.2	Date	Time	Dial Reading	Wet+Tare	563.6
6/2/2022	16:20	0.3817	Tare	219.6	6/2/2022	16:20	0.2989	Tare	214.8
		H2O	Net Weight	371.6			H2O	Net Weight	348.8
6/3/2022	10:00	0.3326	% Water	12.5	6/3/2022	10:00	0.2145	% Water	15
			Dry Dens.	100.1				Dry Dens.	91.9
			% Max					% Max	
			Wet+Tare	633				Wet+Tare	623.5
			Tare	219.6				Tare	214.8
			Net Weight	413.4				Net Weight	408.7
INDEX	49	4.9%	% Water	25.2	**INDEX**	84	8.4%	% Water	34.7

Sample			By		Sample			By	
Sta. No.					Sta. No.				
Soil Type					Soil Type				
Date		Dial Reading	Wet+Tare		Date		Dial Reading	Wet+Tare	
			Tare					Tare	
			Net Weight					Net Weight	
			% Water					% Water	
			Dry Dens.					Dry Dens.	
			% Max					% Max	
			Wet+Tare					Wet+Tare	
			Tare					Tare	
			Net Weight					Net Weight	
INDEX			% Water		**INDEX**			% Water	

Langan # 700117701

SOIL TEST RESULTS

Job No. 2012-0057

SAMPLE NO.:	LB-3 / Bulk				
DESCRIPTION	Silty Clay				
DIRECT SHEAR TEST (type)					
Initial Moisture Content %					
Dry Density (pcf)					
Normal Stress (psf)					
Peak Shear Stress (psf)					
Ultimate Shear Stress (psf)					
Cohesion (psf)					
Internal Friction Angle (degrees)					
EXPANSION TEST UBC STD 18-2					
Initial Dry Density (pcf)					
Initial Moisture Content %					
Final Moisture Content %					
Pressure (psf)					
Expansion Index / Swell %					
CORROSIVITY TEST					
Resistivity (CTM643) (ohm-cm)	1600				
pH (CTM643)	7.4				
CHEMICAL TESTS					
Soluble Sulfate (CTM 417) (ppm)	156				
Chloride Content (CTM 422) (ppm)	27				
Wash #200 Sieve (ASTM-1140) %					
Sand Equivalent (ASTM D2419)					

APPENDIX G
Update to Geotechnical Engineering Report Amar Road Industrial Report

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

20 March 2023

Mr. Tom Lawless
Hines
4000 MacArthur Boulevard
Newport Beach, CA 92660

Re: Update to Geotechnical Engineering Report
Amar Road Industrial Development
City of Industry, California
Langan Project No.: 700117702

Dear Mr. Lawless:

As requested, Langan Engineering and Environmental Services, Inc. (LANGAN) has prepared this letter to provide supplement evaluation related to potential for lateral spreading at the site and to provide updated geotechnical engineering recommendations to include the 2022 California Building Code geotechnical requirements. This letter report has been prepared for the proposed industrial warehouse located at 16008 Amar Road, City of Industry, California and provides supplemental recommendations to report titled:

- Updated Geotechnical Engineering Report for 16008 Amar Road, City of Industry, California, prepared by LANGAN, dated 17 November 2022 and revised 20 January 2023.

We note that peer review comments were received from the City peer reviewer on 9 March 2023, and that the peer reviewer had reviewed a draft version of the 20 January 2023 report. The conclusions from our January 2023 report are consistent with the draft report that the peer reviewer referenced, however they should be provided with the 20 January 2023 report and with this letter.

Geologic/Geotechnical Hazards

Lateral Spreading

Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. The surficial blocks are transported downslope or in the direction of a slope, by earthquake and gravitational forces. The Site is located within a zone of required investigation for liquefaction, however based on our evaluation, liquefaction is unlikely to occur at the site under the MCE earthquake, and therefore lateral spreading is not considered a significant hazard at the site.

2022 Building Code Seismic Design Parameters

Based on our evaluation of the subsurface conditions at the site, the soils underlying the site is characterized as Seismic Site Class D, in accordance with ASCE 7-16 which is consistent with the 2022 California Building Code. Therefore, the seismic design parameters remain valid.

Closure

If you have any questions regarding this letter or require additional information, please feel free to contact us.

Sincerely,

Langan Engineering and Environmental Services, Inc.

Diane M. Fiorelli

Enrique Riutort, PE, GE
Senior Project Manager
GE #2683

Diane M. Fiorelli, PE, GE
Principal/ Vice President
GE #3042

REGISTERED PROFESSIONAL ENGINEER
DIANE M FIORELLI
No. GE 3042
exp 6/30/23
GEOTECHNICAL
STATE OF CALIFORNIA

\\langan.com\data\IRV\data7\700117702\Project Data_Discipline\Geotechnical\Reports\Response to comments\700117701 Updated Geotech 2023 Recs.docx

APPENDIX H
Low Impact Development Plan (LID Plan) Hines Industry Hills

City of Industry
Amar Industry Hills Development
Initial Study/Mitigated Negative Declaration
November 30, 2023

Low Impact Development Plan
(LID Plan)

Project Name: Hines Industry Hills

15940-16016 Amar Rd. and 15940-16040 Kaplan Ave.

Accessor Parcel Number: 8250-001-011, 8250-012-017

City of Industry, CA 91744

Prepared for:

Amar Industry Hills, LLC

444 S. Flower St. Ste. 2100

Los Angeles, CA 90071

Prepared by:

Ware Malcomb

10 Edelman

Irvine, CA 92618

949-660-9128

REGISTERED PROFESSIONAL ENGINEER
LUCAS A. CORSBIE
No. 72588
CIVIL
STATE OF CALIFORNIA

PE Stamp & Sign Here

Date Prepared: 09/09/22

Date Revised: 11/16/22

Project Owner's Certification

I certify under penalty of law that this document and all attachments were prepared under my jurisdiction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathered the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner's Name:			
Owner's Title:			
Company:	Amar Industry Hills, LLC		
Address:	444 S. Flower St. Ste. 2100, Los Angeles, CA 90071		
Email:			
Telephone No:	213-629-5200		
Signature:		Date:	

Preparer (Engineer) Certification

Engineer's Name:	Lucas Corsbie		
Engineer's Title:	Director of Civil Engineering		
Company:	Ware Malcomb		
Address:	10 Edelman, Irvine, CA 92618		
Email:	lcorsbie@waremalcomb.com		
Telephone No:	949-660-9128		
I hereby certify that this Low Impact Development Plan is in compliance with, and meets the requirements set forth in, Order No. R4-2012-0175, of the Los Angeles Regional Water Quality Control Board.			
Engineer's Signature		Date	11/16/2022
Place Stamp Here	REGISTERED PROFESSIONAL ENGINEER LUCAS A. CORSBIE No. 72588 CIVIL STATE OF CALIFORNIA		

Table of Contents

Attachments

1. PROJECT DESCRIPTION

1.1. PROJECT CATEGORY

Check which box best represents the proposed project category. Only check "Yes" for one box.

Category	YES	NO
1. Development [a] of a new project equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious area [b]	☐	☒
2. Development [a] of a new industrial park with 10,000 square feet or more of surface area [c]	☐	☒
3. Development [a] of a new commercial mall with 10,000 square feet or more surface area [c]	☐	☒
4. Development [a] of a new retail gasoline outlet with 5,000 square feet or more of surface area [c]	☐	☒
5. Development [a] of a new restaurant (SIC 5812) with 5,000 square feet or more of surface area [c]	☐	☒
6. Development [a] of a new parking lot with either 5,000 ft^2 or more of impervious area [b] or with 25 or more parking spaces	☐	☒
7. Development [a] of a new automotive service facility (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) with 5,000 square feet or more of surface area [c]	☐	☒
8. Projects located in or directly adjacent to, or discharging directly to a Significant Ecological Area (SEA),[d] where the development will: a. Discharge stormwater runoff that is likely to impact a sensitive biological species or habitat; and b. Create 2,500 square feet or more of impervious area [b]	☐	☒
9. Redevelopment [e] of 5,000 square feet or more in one of the categories listed above **If yes, list redevelopment category here:** 1	☒	☐
10. Redevelopment [e] of 10,000 square feet or more to a Single Family Home, without a change in land use.	☐	☒

[a] Development includes any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that results in land disturbance.

[b] Surfaces that do not allow stormwater runoff to percolate into the ground. Typical impervious surfaces include: concrete, asphalt, roofing materials, etc.

[c] The surface area is the total footprint of an area. Not to include the cumulative area above or below the ground surface.

[d] An area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and would be disturbed or degraded by human activities and developments. Also, an area designated by the City as approved by the Regional Water Quality Control Board.

[e] Land-disturbing activities that result in the creation, addition, or replacement of a certain amount of impervious surface area on an already developed site. If the activity results in an alteration to more than 50% of the impervious surface area on the already developed site and the existing site was not subject to post-construction storm water quality control requirements, then the entire site must be mitigated.

1.2. PROJECT DESCRIPTION

Total Project Area (ft^2): 439,550

Total Project Area (Ac): 10.091

EXISTING CONDITIONS

Condition	Area (ft^2)	Percentage (%)
Pervious Area:	43,799	10.0
Impervious Area:	395,751	90.0

PROPOSED CONDITIONS

Condition	Area (ft^2)	Percentage (%)
Pervious Area:	49,675	11.3
Impervious Area:	389,875	88.7

SITE CHARACTERISTICS

DRAINAGE PATTERNS/CONNECTIONS	**Existing:** The total existing site area is 439,550 ft^2. In the existing condition, the site generally slopes in a westerly direction, with runoff flowing away from each of the existing buildings and concentrating into the gutter systems throughout the site. Several ridgelines exist on the site, which divide drainage into three distinct DMAs. DMA A encompasses approximately 3.241 acres in the northern portion of the site, with runoff draining from the eastern edge to the western edge and flowing onto the neighboring property to the west via the existing gutter system with connects the two properties. DMA B encompasses approximately 5.641 acres in the central portion of the site, with runoff draining towards Kaplan Avenue and eventually collecting in an existing storm drain catch basin in the Kaplan Avenue cul-de-sac. This catch basin also captures offsite flows from Echelon Ave. DMA C encompasses approximately 1.209 acres in the southern portion of the site. Runoff here drains westerly along the site's southern property line to an existing catch basin located in the southwest corner. This catch basin also collects the runoff from DMA B via an existing storm drain line that connects the two existing catch basin, and discharges to the Puente Creek Channel. In the existing condition, runoff from the site is first conveyed to Puente Creek, then to San Jose Creek, next to the San Gabriel River, and finally into the Pacific Ocean.

DRAINAGE PATTERNS/CONNECTIONS:	**<u>Proposed:</u>** In the proposed condition, the site's drainage patterns will mimic the existing condition to the maximum extent practicable. Similarly to the existing condition, the proposed drainage condition features three separate DMAs, each with their own runoff flow paths. DMA A encompasses approximately 3.661 acres of the northern portion of the site. Runoff from this DMA is conveyed by the combined valley gutter and curb & gutter system along the northern/northwestern edges of the site into a series of grate inlet catch basins, which connect to a storm drain main. Runoff is then discharged into an underground storage chamber near the northwestern corner of the proposed building. This collected runoff is subsequently treated by a proprietary biotreatment BMP before being pumped out to a proposed parkway drain and discharged into Amar Road. DMA B encompasses approximately 3.619 acres of the middle portion of the site. Runoff from this DMA is also conveyed by the combined valley gutter and curb & gutter system along the western and eastern edges of the site into a series of grate inlet catch basins. These are connected to a separate storm drain main from DMA A, and this runoff is conveyed to another underground storage chamber near the southwestern corner of the site. Runoff is finally treated by another proprietary biotreatment BMP before being conveyed into the existing 33" RCP storm drain at the site's southwestern corner, and finally discharged into Puente Creek. DMA C encompasses approximately 2.811 acres of the southern portion of the site, all of the runoff that is left uncaptured by the two underground storage chambers. This runoff mainly drains from the proposed truck dock and loading area along the proposed building's southern face. Runoff drains southerly towards the southernmost curb and gutter, and discharges into the bioretention basin where it collects and is treated. Eventually, this runoff is collected by the subdrain network and discharged to the same 33" RCP storm drain as the runoff from DMA B and finally discharged into Puente Creek, as well.
NARRATIVE PROJECT DESCRIPTION:	The existing project site is commercial use (Zoning: C3-BE) with an existing motel building and parking lot. The project site is located at 15940-16012 Amar Road and 15940-16065 Kaplan Avenue within the City of Industry. The total project area is 10.091 acres and entire site will be disturbed. There are seven existing, developed lots that will be lot-tied into a single lot. The site area is bounded by Echelon Ave to the east, Amar Road to the north, an existing 3.8± acre commercial building to the west, and Puente Creek to the south. The proposed project consists of the construction of a 198,000 SF industrial building with truck docks, trailer and car parking areas,

	driveways, trash enclosures, hardscape, and landscape. Two proprietary biofiltration BMPs and a biofiltration basin are proposed for pollutant control. The project also proposes offsite improvements which include curb and gutter replacement as well as driveway approach addition and replacement.

OFFSITE RUN-ON	To prevent the comingling of onsite and offsite flows, a new cross gutter at the proposed driveway on Echelon Avenue will be constructed to convey the offsite flows from Echelon Avenue southerly. Additionally, the driveways at the site's northern edge along Amar Road will be constructed with ridgelines so as to collect on site runoff and allow off site runoff to continue flowing within the existing public curb and gutter system along Amar Road.
UTILITY AND INFRASTRUCTURE INFORMATION	The existing site has various electric, sewer, water, gas, telephone, and storm drain utilities. Kaplan Avenue is a public road with cul-de-sac. The proposed site will install sewer, irrigation, water, fire, and storm drain lines. Underground detention systems and biofiltration BMPs are also proposed for pollutant control and to mitigate the increase in runoff from the proposed site improvements.
SIGNIFICANT ECOLOGICAL AREAS (SEAS)	There are no known significant ecological areas.

1.3. HYDROMODIFICATION ANALYSIS

DOES THE PROPOSED PROJECT FALL INTO ONE OF THE FOLLOWING CATEGORIES? CHECK YES/NO.	YES	NO
1. *Project is a redevelopment that decreases the effective impervious area compared to the pre-project conditions.*	☒	☐
Describe: The existing site is 90.0% impervious and the proposed site will be 88.7% impervious.		
2. *Project is a redevelopment that increases the infiltration capacity of pervious areas compared to the pre-project conditions.*	☐	☒
Describe:		
3. *Project discharges directly or via a storm drain to a sump, lake, area under tidal influence, into a waterway that has a 100-year peak flow (Q_{100}) of 25,000 cfs or more.*	☐	☒
Describe:		
4. *Project discharges directly or via a storm drain into concrete or otherwise engineered (not natural) channels (e.g., channelized or armored with rip rap, shotcrete, etc.), which, in turn, discharge into receiving water that is not susceptible to hydromodification impacts.*	☐	☒
Describe:		

HYDROMODIFICATION ANALYSIS

The project is exempt from Hydromodification Control Measures.

1.4. PROPERTY OWNERSHIP/MANAGEMENT

PROPERTY OWNERSHIP/ MANAGEMENT	The project site will be owned and maintained by the owner, Hines.

2. BEST MANAGEMENT PRACTICES (BMPS)

2.1. SITE DESIGN

85TH PERCENTILE, 24-HOUR STORM DEPTH	The 85th percentile precipitation is 1.00 inch, which is greater than the 0.75 inch. As a result, the 85th percentile storm event will be used to determine the required mitigation volume. See Attachment A for 85th Percentile Isohyetal Map. The numerical soil classification used for the project is 017 (Yolo Clay Loam), which is taken from 1-H1.21 Hydrologic Map provided in Attachment A.
SITE DESIGN	Site design was primarily driven by the purpose of providing adequate drainage from the site's building and LID BMP implementation per the County of Los Angeles Low Impact Development Manual. The project will be adding and replacing more than 50% of the existing impervious areas and is required to treat for the entire site.

BMP LIST

DMA DESIGNATION	SQUARE FOOTAGE (SF)	ACREAGE (AC)	STORM WATER QUALITY DESIGN VOLUME (SWQDV, CF)	BIOFILTRATION VOLUME (1.5 X SWQDV, CF)	BMP TYPE	BMP SIZE PROVIDED	GPS COORDINATES
A	159,459	3.661	11,177	16,766	T-6: Proprietary Biotreatment Modular Wetlands Linear	MWS-8-8-V Treatment Volume = 16,769 CF	34° 2' 9.6" N -117° 56' 13.1994" W
B	157,662	3.619	11,122	16,683	T-6: Proprietary Biotreatment Modular Wetlands Linear	MWS-8-8-V Treatment Volume = 16,769 CF	34° 2' 2.3994" N -117° 56' 13.1994" W
C	122,429	2.811	7,118	10,677	BIO-1: Biofiltration	Basin Bottom Surface Area = 8,471 SF Treatment Volume = 12,707 CF	34° 2' 2.3994" N -117° 56' 9.6" W

2.2. BMP SELECTION

2.2.1. INFILTRATION BMPS

NAME	INCLUDED
Bioretention without underdrains	☐
Infiltration Trench	☐
Infiltration Basin	☐
Drywell	☐
Proprietary Subsurface Infiltration Gallery	☐
Permeable Pavement (concrete, asphalt, pavers)	☐
Other:	☐
Other:	☐

DESCRIPTION	A geotechnical investigation report was prepared by Langan Engineering and Environmental Services, Inc. on June 8, 2022. Percolation tests were performed in general accordance with the County of Los Angeles Department of Public Works “GS200.1 Guidelines for Geotechnical Investigation and Reporting Low Impact Development Stormwater Infiltration” dated June 30, 2021. The resulting design infiltration rate was found to be 0.06 in/hr. Per the manual, handbook requires that the design infiltration rate be greater or equal to 0.3 in/hr for feasibility. As a result, infiltration is not feasible and biofiltration methods will be used to treat the required stormwater volumes. See Attachment B for the geotechnical report.
CALCULATIONS	Not applicable.

2.2.2. RAINWATER HARVEST AND USE BMPS

NAME	INCLUDED
Above-ground cisterns and basins	☐
Underground detention	☐
Other:	☐
Other:	☐
Other:	☐

DESCRIPTION	This project will not be using Rainwater Harvest and Use BMPs.
CALCULATIONS	Not applicable for project.

2.2.3. ALTERNATIVE COMPLIANCE BMPS

BIOFILTRATION BMPS

(If Infiltration BMPs and Rainwater Harvest and Use BMPs are Infeasible)

NAME	INCLUDED
Bioretention with underdrains (i.e. planter box, rain garden, etc.)	☒
Constructed Wetland	☐
Vegetated Swale	☐
Vegetated Filter Strip	☐
Tree-Well Filter	☐
Other: Proprietary Biofiltration BMP	☒
Other:	☐

DESCRIPTION	This project will be using two proprietary biofiltration BMPs and a biofiltration basin to mitigate the SWQDv.
CALCULATIONS	<u>SWQDv Calculation</u> The project will be adding and replacing more than 50% of the existing impervious area and is required to treat for the entire site. See the LID plan in Attachment E. Soil Type 017 – Yolo Clay Loam The HydroCalc 1.0.3 Program was used to calculate the SWQDv. The HydroCalc printouts are provided in Attachment A. Biofiltration BMPs are required to treat 1.5 x SWQDv.

DMA ID	SWQDv	Biofiltration Volume
A	11,177	16,766
B	11,122	16,683
C	7,118	10,677

For DMA A and DMA B, a Modular Wetlands Linear MWS-8-8-V was selected. The MWS-8-8-V has a treatment volume of 16,769 cu-ft. An ADS StormTech Chambers will be provided for each MWS unit as upstream storage. Each chamber has a storage volume of 17,000 cu-ft.

For DMA C, a biofiltration basin with underdrains will be provided. The biofiltration soil media will have a minimum 5 inches/hour infiltration rate. The proposed bottom surface area is 8,471 sq-ft with a provided treatment volume of 12,707 cu-ft.

OFFSITE BMPS

(If Infiltration BMPs, Rainwater Harvest and Use BMPs, and Biofiltration BMPs are Infeasible)

NAME	INCLUDED
Offsite Infiltration	☐
Ground Water Replenishment Projects	☐
Offsite Project - Retrofit Existing Development	☐
Regional Storm Water Mitigation Program	☐
Other:	☐
Other:	☐

DESCRIPTION	This project will not be using Offsite BMPs.
CALCULATIONS	Not applicable for project.

2.2.4. TREATMENT CONTROL BMPS

NAME	INCLUDED
Media Filter	☐
Filter Insert	☒
CDS Unit	☐
Other:	☐
Other:	☐

DESCRIPTION	This project will be installing Flo-Gard Catch Basin Insert Filters at the proposed catch basins onsite. The catch basins are 24”x24”. The catch basin insert filters will be conservatively sized to treat the 1-year, 1-hour storm flowrate. Based on the project-specific NOAA Atlas 14 Precipitation Frequency Estimates, the 1-year, 1-hour storm event is 0.479 in/hr. Refer to the NOAA Atlas 14 printout provided in Attachment F. DMA B will provide the most conservative sizing of the catch basin insert filter. Q = CiA Where Q = the peak runoff rate, cfs C = runoff coefficient (Calculated using Runoff Coefficient Curve for Soil Type No. 017) = (0.9* IMP) + (1-IMP)*Cu Where IMP = Proportion Impervious Cu = Undeveloped runoff coefficient = 0.45 (From curve graph) = (0.9*0.935) + (1-0.935)*0.45 = 0.871 i = rainfall intensity, inches per hour = 0.479 in/hr A = area, acres = 3.661 ac Q = 0.871 x 0.479 x 3.661 = 1.53 cfs The catch basins will have FGP-24G units, which has a filtered flow rate of 1.5 cfs.

2.2.5. HYDROMODIFICATION CONTROL BMPS

NAME	INCLUDED
Infiltration System	☐
Above-ground Cistern	☐
Above-ground Basin	☐
Underground Detention	☐
Other:	☐
Other:	☐

DESCRIPTION	The site is exempt from hydromodification requirements.
CALCULATIONS	Not applicable.

2.2.6. NON-STRUCTURAL SOURCE CONTROL BMPS

NAME	CHECK ONE	
	Included	**Not Applicable**
N1: Education for Property Owners, Tenants and Occupants	☒	☐
N2: Activity Restrictions	☒	☐
N3: Common Area Landscape Management	☒	☐
N4: Common Area Litter Control	☒	☐
N5: Housekeeping of Loading Docks	☒	☐
N6: Common Area Catch Basin Inspection	☒	☐
N7: Street Sweeping Private Streets and Parking Lots	☒	☐

N1: Education for Property Owners, Tenants and Occupants

Educational materials on general housekeeping practices to contribute to the protection of stormwater are provided in Attachment E. These materials will be provided to property owners, tenants, and occupants upon sale of lease. Reminders will be sent or posted annually.

N2: Activity Restrictions

Vehicle and equipment washing, vehicle and equipment maintenance and repair, fuel dispensing outdoor processing, outdoor material storage, and food preparation activities are prohibited on-site at all times.

N3: Common Area Landscape Management

Comply with local ordinances as it related to the usage of fertilizer and/or pesticide usage. Owner to provide maintenance of landscaping to meet current water efficiency. Monitor for runoff and efficiency. Mitigation of potential dangers of fertilizer and pesticide usage through the implementation and incorporation of an Integrated Pest Management Program (IPM). Landscaped areas should be inspected and maintained on a weekly basis.

N4: Common Area Litter Control

Implement trash management and litter control procedures in the common areas to reduce pollution of drainage water. Clear common areas from trash and debris. Litter patrol may be included with landscaping maintenance or with waste disposal services. Common areas should be inspected and maintained on a weekly basis.

N5: Housekeeping of Loading Docks

Loading docks should be kept in a clean and orderly condition through a regular program of sweeping and litter control, which includes the immediate cleanup of spills and broken containers. Cleanup procedures should minimize or eliminate the use of water. Loading docks should be cleaned on a weekly basis.

N6: Common Area Catch Basin Inspection

Inspect common area catch basins on a weekly basis and after rain events. Clear inlets of trash, debris, and silt as needed, but once a year at a minimum.

N7: Street Sweeping Private Streets and Parking Lots

Vacuum-sweep all paved areas on a weekly basis.

2.2.7. STRUCTURAL SOURCE CONTROL BMPS

NAME	CHECK ONE	
	Included	**Not Applicable**
S-1: Storm Drain Message and Signage	☒	☐
S-2: Outdoor Material Storage Areas	☐	☒
S-3: Outdoor Trash Storage / Waste storage Areas	☒	☐
S-4: Outdoor Loading Dock / Unloading Dock Area	☒	☐
S-5: Outdoor Vehicle /Equipment Repair / Maintenance Area	☐	☒
S-6: Outdoor Vehicle / Equipment / Accessory Wash Area	☐	☒
S-7: Fuel & Maintenance Area	☐	☒
S-8: Landscape Irrigation Practices	☒	☐
S-9: Building Materials	☐	☒
S-10: Animal Care and Handling Facilities	☐	☒
S-11: Outdoor Horticulture Areas	☐	☒

S-1: Storm Drain Message and Signage

Provide stenciling and signage at catch basins and inlets with “No Dumping-Drains to Ocean; No Descargue Basura” language. Maintain legibility of storm drain stencils and signage. Check that all catch basins in paved areas marked or stenciled with “Replace/repaint markings if faded, damaged, removed, or otherwise illegible.

S-3: Outdoor Trash Storage / Waste Storage Areas

Design trash enclosure so that drainage area from adjoining roofs and pavement is directed around the area(s) to avoid run-on. Use lined bins or dumpsters to reduce leaking of liquid waste. Provide roof on trash enclosure. Pave trash storage area with an impervious surface to mitigate spills. Post signs on all dumpsters informing users that hazardous materials are not to be disposed of therein.

S-4: Outdoor Loading Dock / Unloading Dock Area

Housekeeping of loading docks shall be consistent with N5.

S-8: Landscape Irrigation Practices

Choose plants that minimize or eliminate the use of fertilizer or pesticides. Group plants with similar water requirements and mulch planter areas without ground cover. Leave a vegetative barrier along the property boundary to act as a pollutant filter, where appropriate and feasible. Design irrigation systems to each landscape area’s specific water requirements. Design timing and application methods to minimize the runoff of excess irrigation. Correction of deficiencies in the irrigation system.

Attachment A

Calculations

Peak Flow Hydrologic Analysis

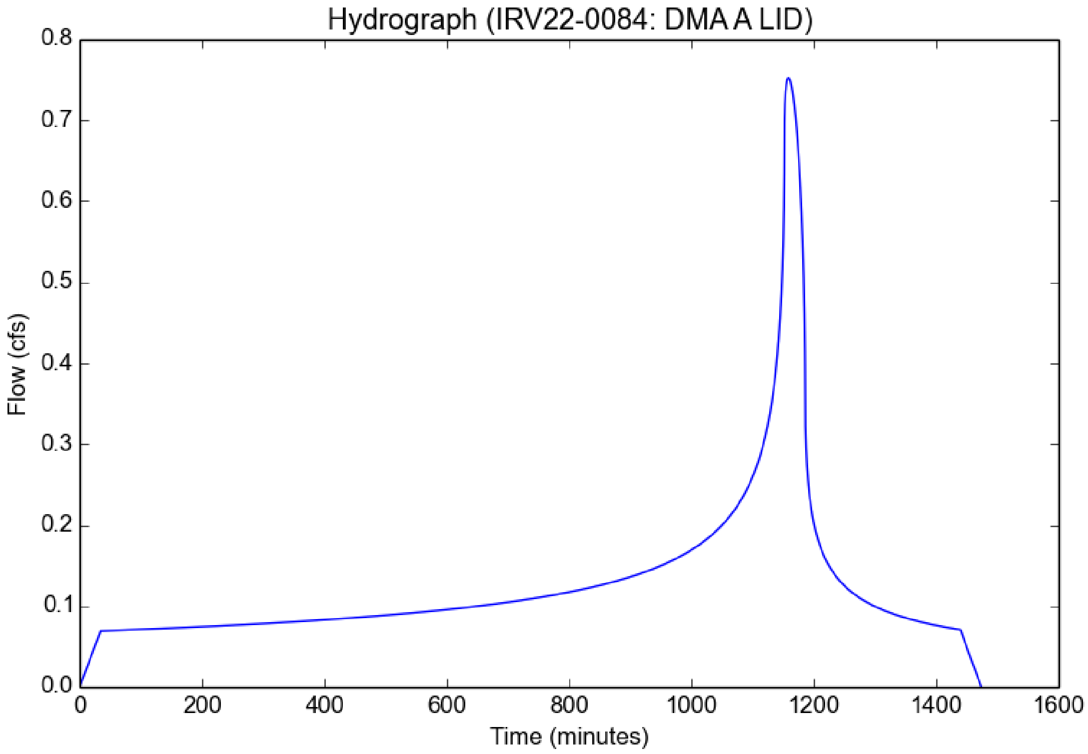
File location: W:/IRV/22/0084/00/Civil/ENG/LID/Attachment A - LID Calculations/IRV22-0084 - DMA A LID.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA A LID
Area (ac)	3.661
Flow Path Length (ft)	733.0
Flow Path Slope (vft/hft)	0.006125
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	0.935
Soil Type	17
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.2423
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.848
Time of Concentration (min)	34.0
Clear Peak Flow Rate (cfs)	0.7523
Burned Peak Flow Rate (cfs)	0.7523
24-Hr Clear Runoff Volume (ac-ft)	0.2566
24-Hr Clear Runoff Volume (cu-ft)	11176.4661



Peak Flow Hydrologic Analysis

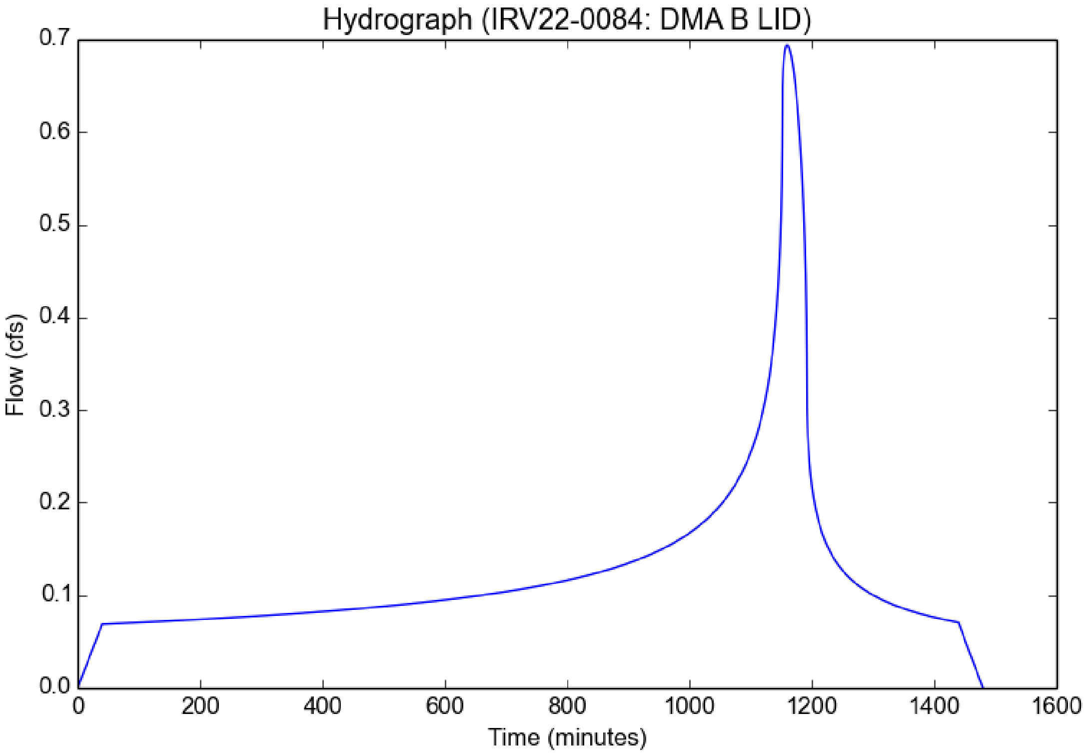
File location: W:/IRV/22/0084/00/Civil/ENG/LID/Attachment A - LID Calculations/IRV22-0084 - DMA B LID.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA B LID
Area (ac)	3.619
Flow Path Length (ft)	905.0
Flow Path Slope (vft/hft)	0.005
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	0.942
Soil Type	17
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.2245
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.8536
Time of Concentration (min)	40.0
Clear Peak Flow Rate (cfs)	0.6936
Burned Peak Flow Rate (cfs)	0.6936
24-Hr Clear Runoff Volume (ac-ft)	0.2553
24-Hr Clear Runoff Volume (cu-ft)	11121.2707



Peak Flow Hydrologic Analysis

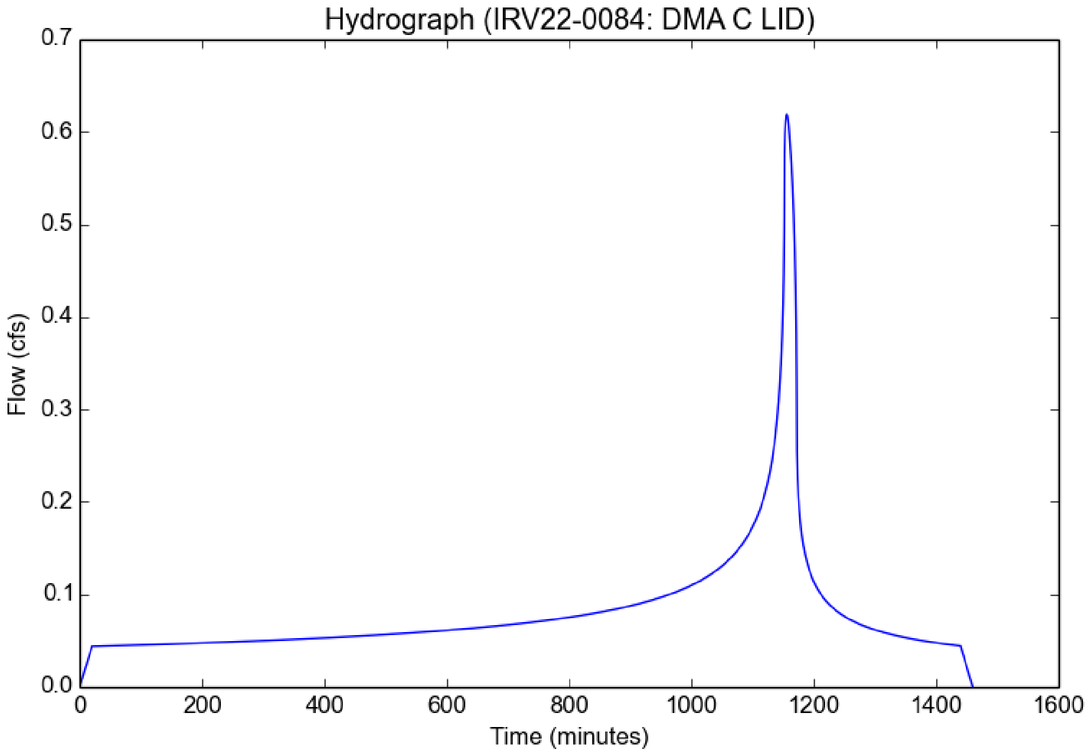
File location: W:/IRV/22/0084/00/Civil/ENG/LID/Attachment A - LID Calculations/IRV22-0084 - DMA C LID.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA C LID
Area (ac)	2.811
Flow Path Length (ft)	326.0
Flow Path Slope (vft/hft)	0.0131
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	0.754
Soil Type	17
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.311
Undeveloped Runoff Coefficient (Cu)	0.12
Developed Runoff Coefficient (Cd)	0.7081
Time of Concentration (min)	20.0
Clear Peak Flow Rate (cfs)	0.619
Burned Peak Flow Rate (cfs)	0.619
24-Hr Clear Runoff Volume (ac-ft)	0.1634
24-Hr Clear Runoff Volume (cu-ft)	7117.5584



PROJECT INFORMATION

ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	

Advanced Drainage Systems, Inc.

SiteAssist™
FOR STORMTECH
INSTALLATION INSTRUCTIONS
VISIT OUR APP

HINES INDUSTRY

INDUSTRY, CA

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT

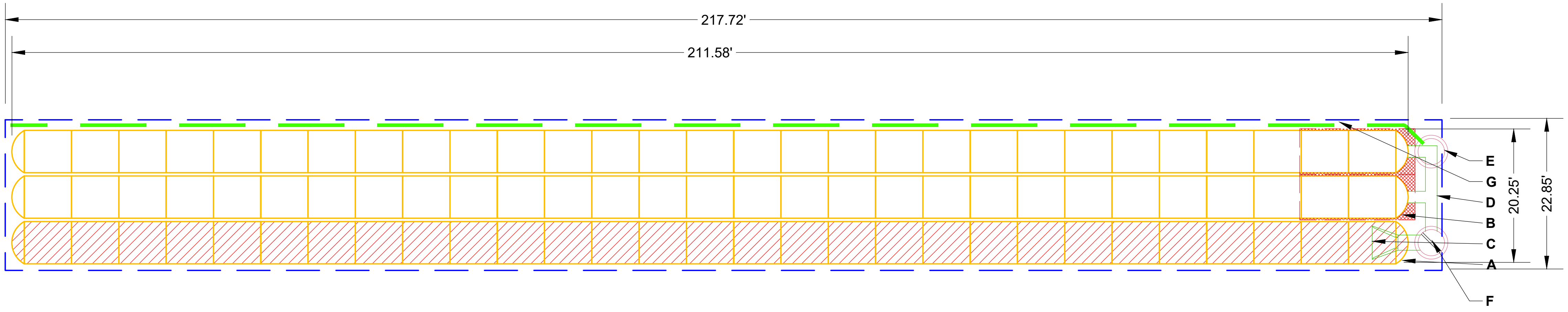
87	STORMTECH MC-3500 CHAMBERS
6	STORMTECH MC-3500 END CAPS
12	STONE ABOVE (in)
9	STONE BELOW (in)
40	STONE VOID
16769	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)
4975	SYSTEM AREA (SF)
481.1	SYSTEM PERIMETER (ft)

CONCEPTUAL ELEVATIONS

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	12.50
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	6.50
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	6.00
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	6.00
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	6.00
TOP OF STONE:	5.50
TOP OF MC-3500 CHAMBER:	4.50
24" ISOLATOR ROW PLUS INVERT:	0.92
18" x 18" BOTTOM MANIFOLD INVERT:	0.90
18" BOTTOM CONNECTION INVERT:	0.90
BOTTOM OF MC-3500 CHAMBER:	0.75
UNDERDRAIN INVERT:	0.00
BOTTOM OF STONE:	0.00

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED END CAP	A	24" BOTTOM CORED END CAP, PART#: MC3500IEPP24BC / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	2.06"	
PREFABRICATED END CAP	B	18" BOTTOM CORED END CAP, PART#: MC3500IEPP18BC / TYP OF ALL 18" BOTTOM CONNECTIONS	1.77"	
FLAMP	C	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MC350024RAMP		
MANIFOLD	D	18" x 18" BOTTOM MANIFOLD, ADS N-12	1.77"	
CONCRETE STRUCTURE	E	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		4.0 CFS OUT
CONCRETE STRUCTURE W/WEIR	F	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		11.0 CFS IN
UNDERDRAIN	G	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		



▨ ISOLATOR ROW PLUS (SEE DETAIL)

▩ PLACE MINIMUM 17.50' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

— — BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

HINES INDUSTRY
INDUSTRY, CA

DATE:
PROJECT #:
DRAWN: BS
CHECKED: N/A

DATE	DRW	CHK	DESCRIPTION

StormTech®
Chamber System
888-892-2694 | WWW.STORMTECH.COM

ADS
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

0 20' 40'

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

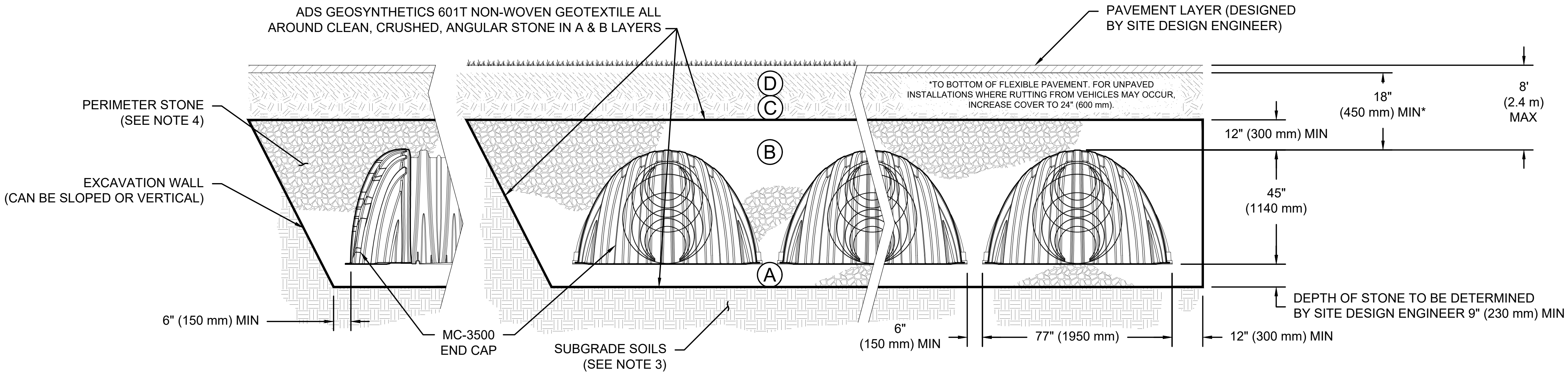
SHEET
2 OF 5

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
    - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
    - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
    - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

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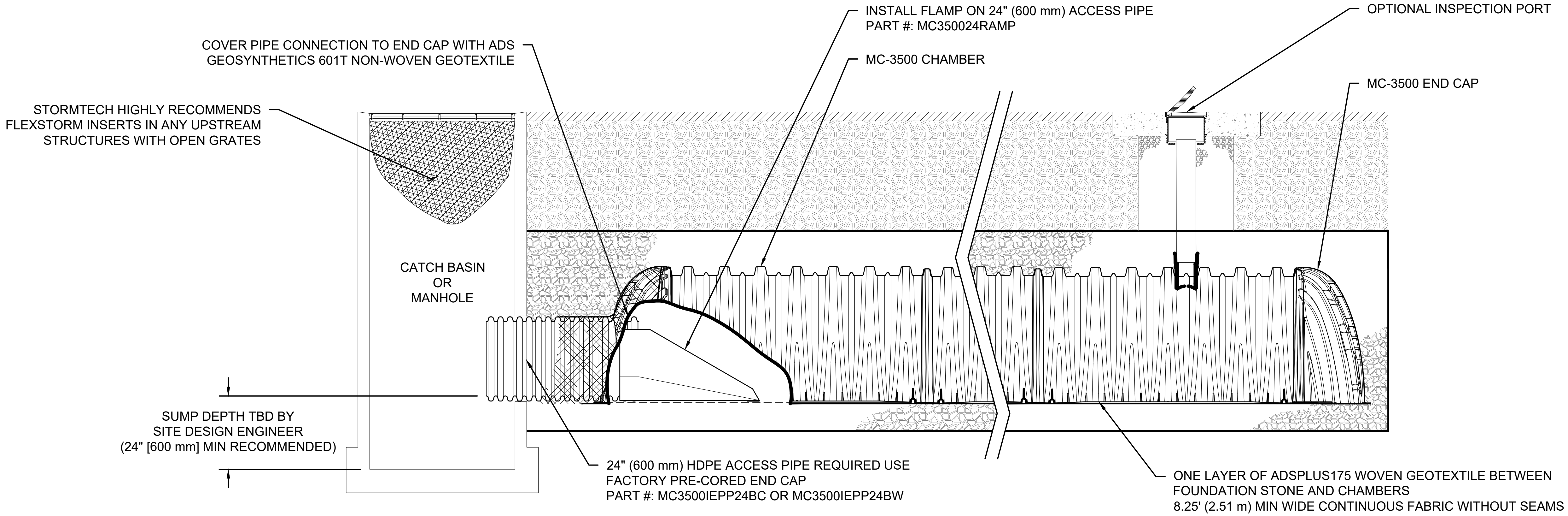

MC-3500 ISOLATOR ROW PLUS DETAIL

NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

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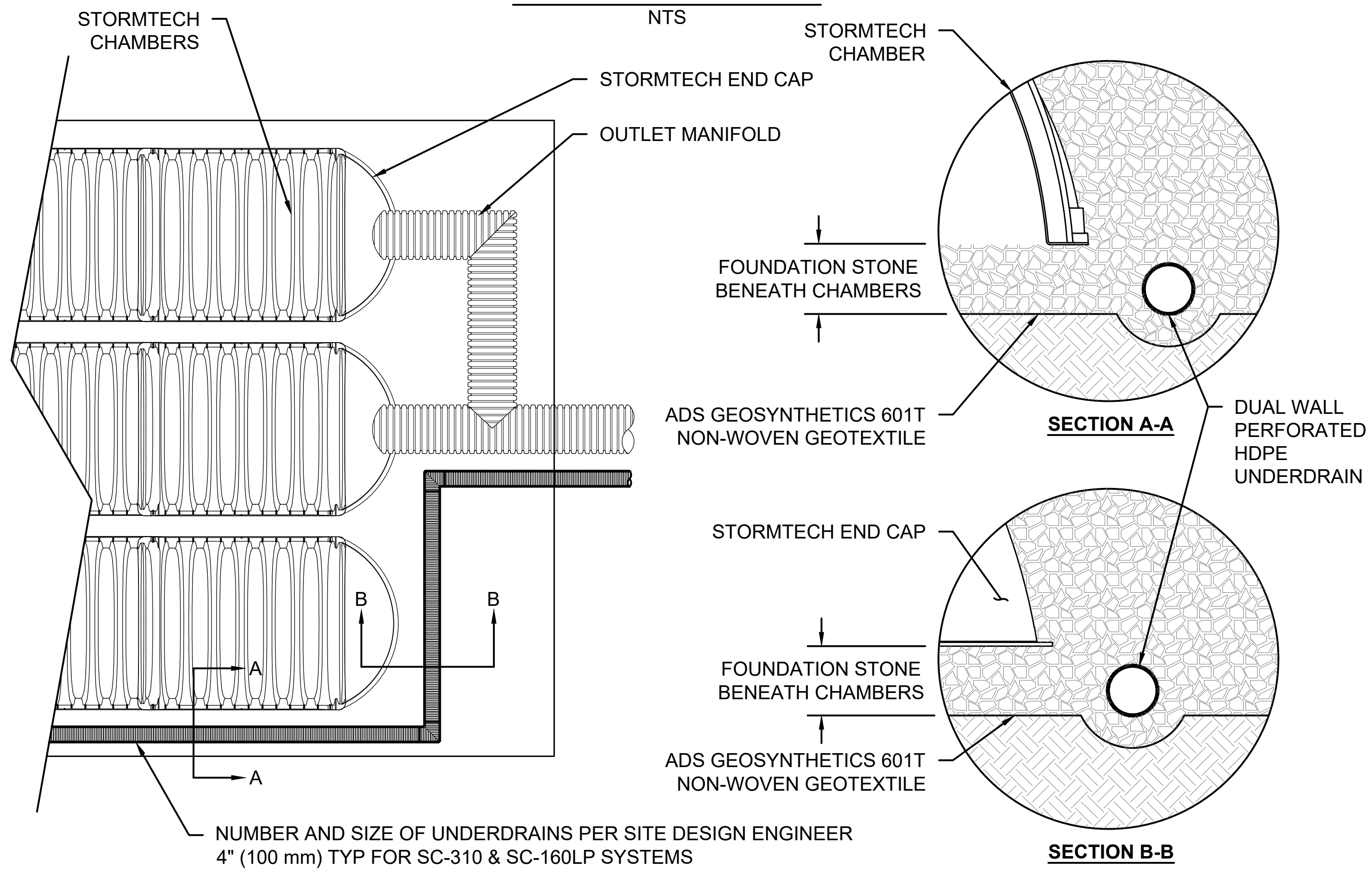
SHEET
4 OF 5

UNDERDRAIN DETAIL

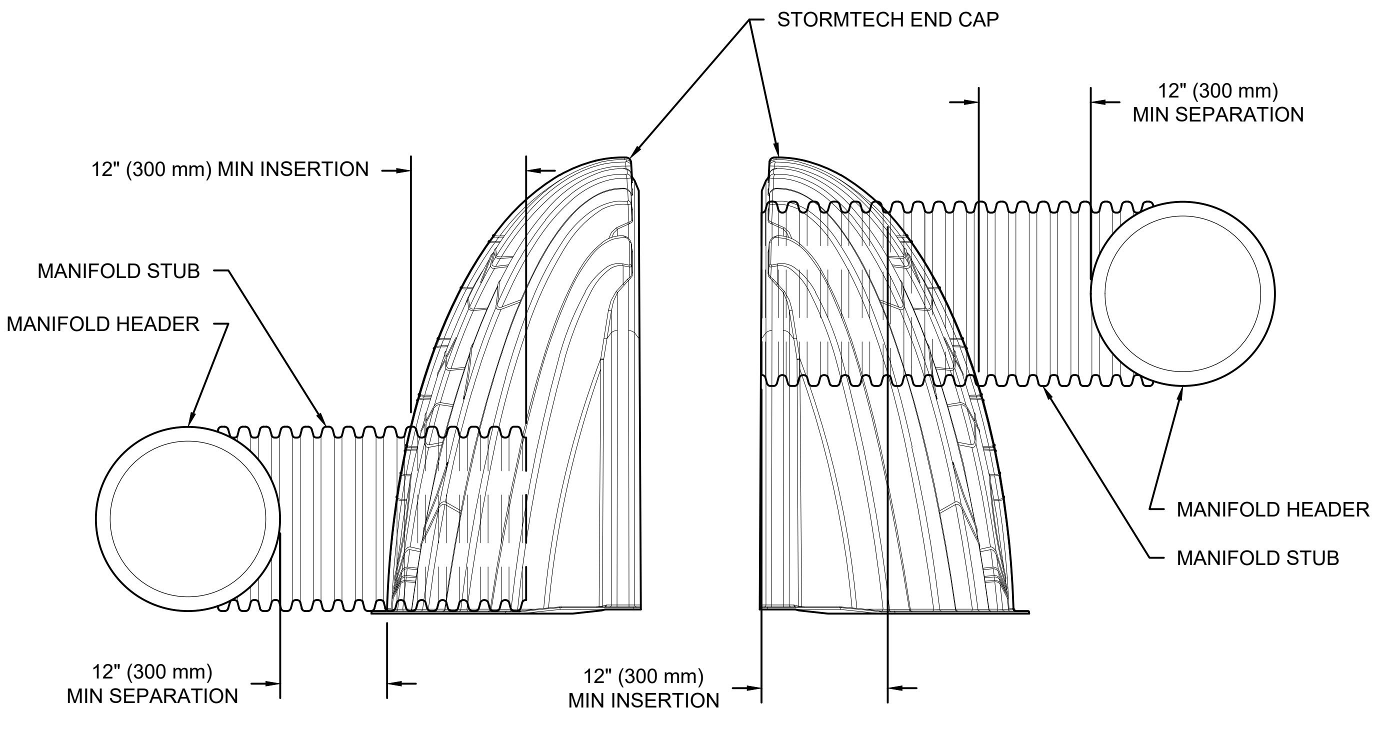
NTS



NUMBER AND SIZE OF UNDERDRAINS PER SITE DESIGN ENGINEER
4" (100 mm) TYP FOR SC-310 & SC-160LP SYSTEMS
6" (150 mm) TYP FOR SC-740, DC-780, MC-3500, MC-4500 & MC-7200 SYSTEMS

MC-SERIES END CAP INSERTION DETAIL

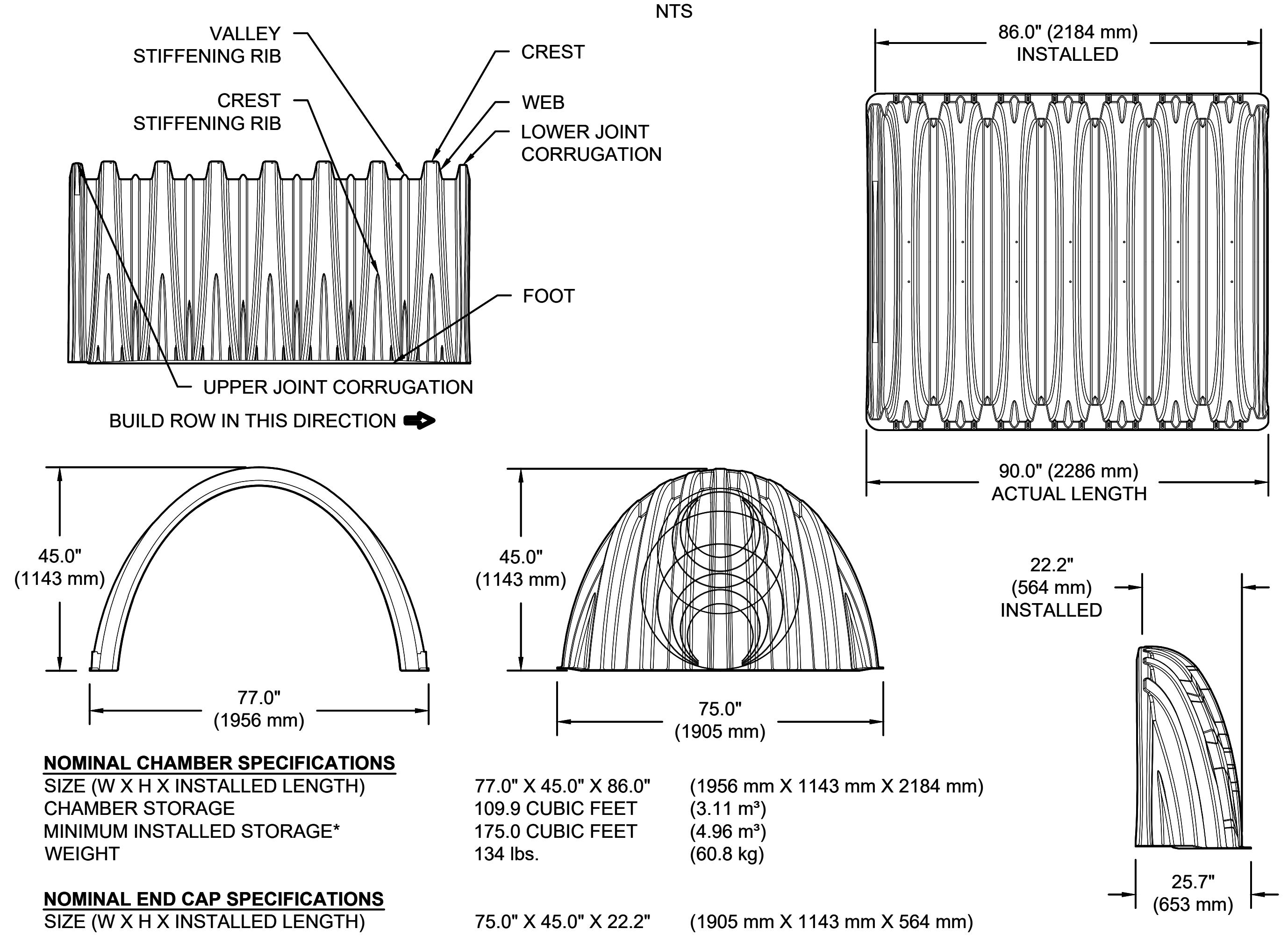
NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL
FOR A PROPER FIT IN END CAP OPENING.

MC-3500 TECHNICAL SPECIFICATION

NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m³)
WEIGHT	134 lbs.	(60.8 kg)

NOMINAL END CAP SPECIFICATIONS

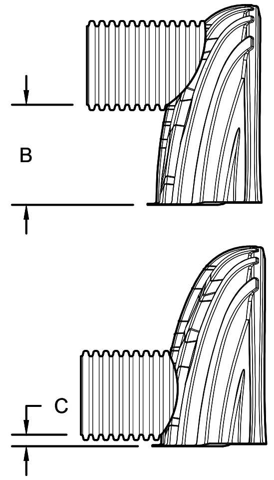
SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW			
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW			
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

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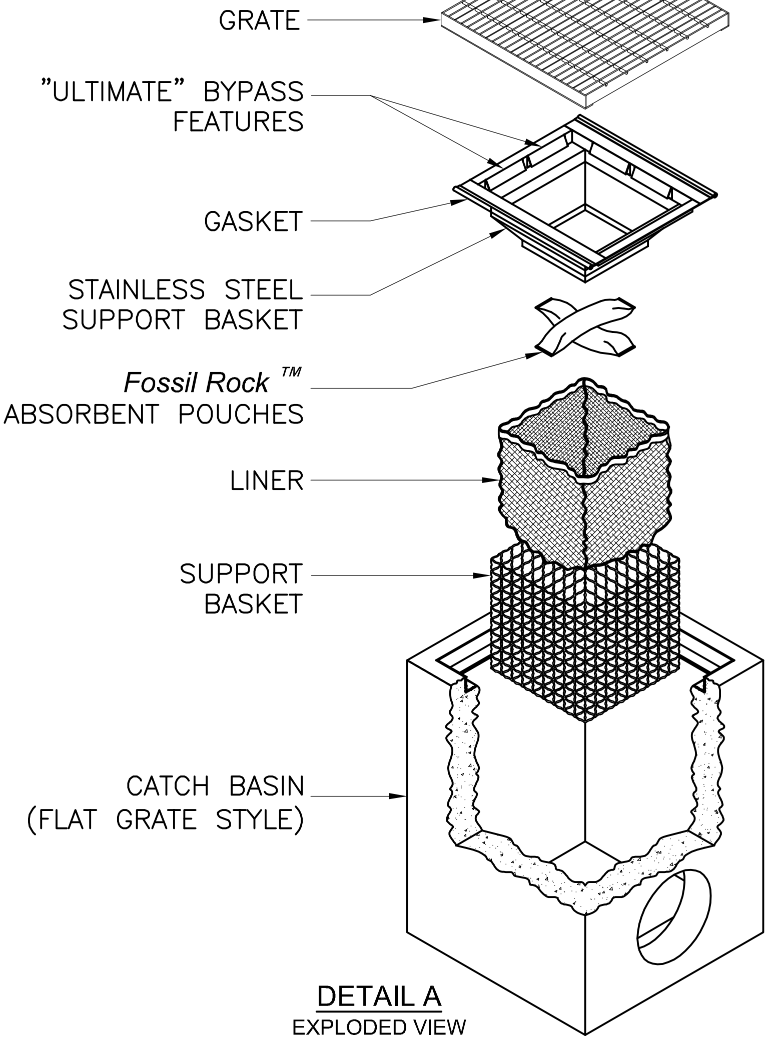
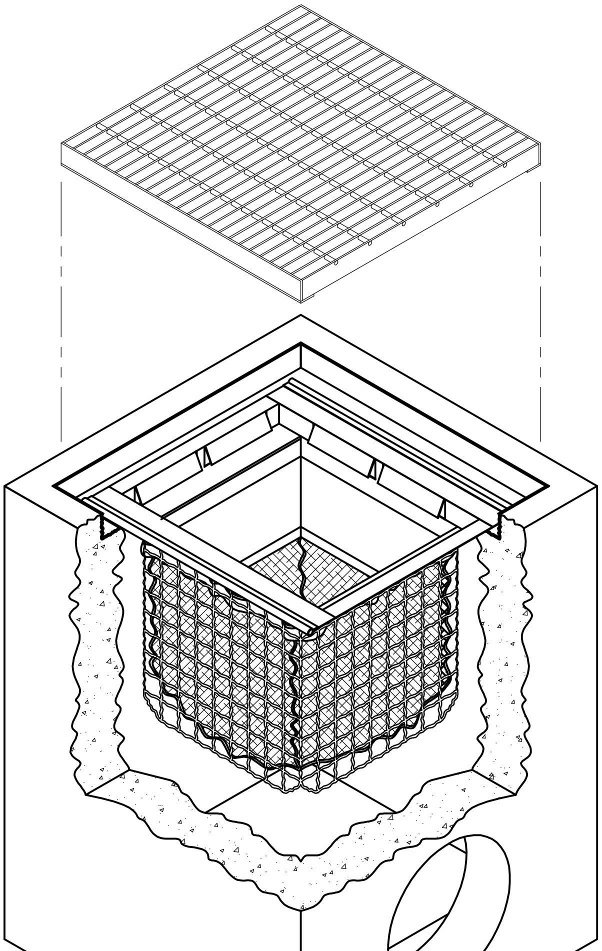
SHEET
5 OF 5

FGP-0001



DETAIL A
EXPLODED VIEW



FloGard® FILTER
-INSTALLED INTO CATCH BASIN-

NOTES:

1. Filter insert shall have a high flow bypass feature.
2. Filter support frame shall be constructed from stainless steel Type 304.
3. Filter medium shall be *Fossil Rock* ™, installed and maintained in accordance with manufacturer specifications.
4. Storage capacity reflects 80% of maximum solids collection prior to impeding filtering bypass.

U.S. PATENT # 6,00,023 & 6,877,029

Inlet
Filtration

FloGard®

Catch Basin Insert Filter

Grated Inlet Style

Oldcastle®
Stormwater Solutions

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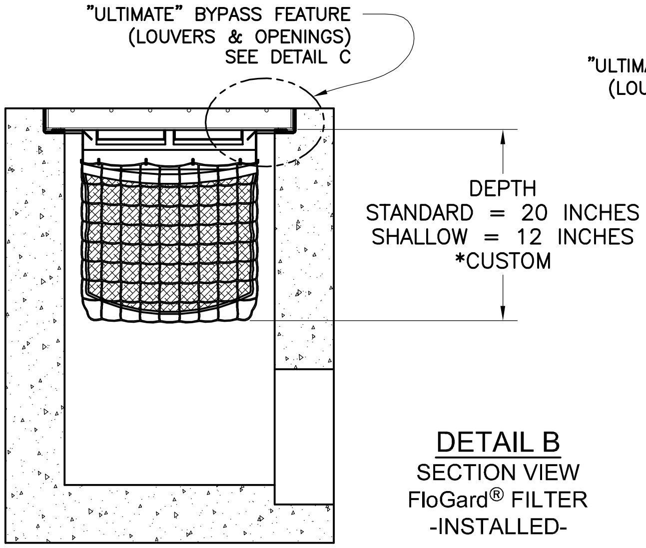
DRAWING NO.	REV	ECO	DATE	
FGP-0001	G	ECO-0142 JPR 7/13/16	JPR 11/3/06	SHEET 1 OF 2

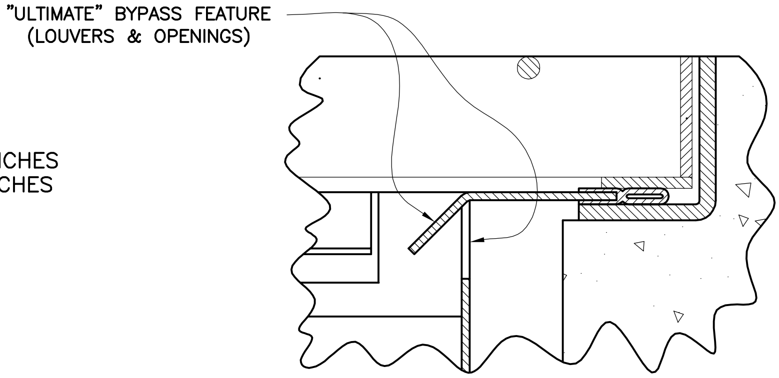
FGP-0001

U.S. PATENT # 6,00,023 & 6,877,029



DETAIL B

SECTION VIEW
FloGard® FILTER
-INSTALLED-



DETAIL C

"ULTIMATE"
BYPASS FEATURES

* MANY OTHER STANDARD & CUSTOM SIZES & DEPTHS AVAILABLE UPON REQUEST.

SPECIFIER CHART

MODEL NO. STANDARD DEPTH	STANDARD & SHALLOW DEPTH (Data in these columes is the same for both STANDARD & SHALLOW versions)			STANDARD DEPTH -20 Inches-		MODEL NO. SHALLOW DEPTH	SHALLOW DEPTH -12 Inches-	
	INLET ID Inside Dimension (inch x inch)	GRATE OD Outside Dimension (inch x inch)	TOTAL BYPASS CAPACITY (cu. ft. / sec.)	SOLIDS STORAGE CAPACITY (cu. ft.)	FILTERED FLOW (cu. ft. / sec.)		SOLIDS STORAGE CAPACITY (cu. ft.)	FILTERED FLOW (cu. ft. / sec.)
FGP-12F	12 X 12	12 X 14	2.8	0.3	0.4	FGP-12F8	.15	.25
FGP-16F	16 X 16	16 X 19	4.7	0.8	0.7	FGP-16F8	.45	.4
FGP-18F	18 X 18	18 X 20	4.7	0.8	0.7	FGP-18F8	.45	.4
FGP-1824F	16 X 22	18 X 24	5.0	1.5	1.2	FGP-1824F8	.85	.7
FGP-1836F	18 X 36	18 X 40	6.9	2.3	1.6	FGP-1836F8	1.3	.9
FGP-2024F	18 X 22	20 X 24	5.9	1.2	1.0	FGP-2024F8	.7	.55
FGP-21F	22 X 22	22 X 24	6.1	2.2	1.5	FGP-21F8	1.25	.85
FGP-24F	24 X 24	24 X 27	6.1	2.2	1.5	FGP-24F8	1.25	.85
FGP-2430F	24 X 30	26 X 30	7.0	2.8	1.8	FGP-2430F8	1.6	1.05
FGP-2436F	24 X 36	24 X 40	8.0	3.4	2.0	FGP-2436F8	1.95	1.15
FGP-2448F	24 X 48	26 X 48	9.3	4.4	2.4	FGP-2448F8	2.5	1.35
FGP-28F	28 X 28	32 X 32	6.3	2.2	1.5	FGP-28F8	1.25	.85
FGP-30F	30 X 30	30 X 34	8.1	3.6	2.0	FGP-30F8	2.05	1.15
FGP-36F	36 X 36	36 X 40	9.1	4.6	2.4	FGP-36F8	2.65	1.35
FGP-3648F	36 X 48	40 X 48	11.5	6.8	3.2	FGP-3648F8	3.9	1.85
FGP-48F	48 X 48	48 X 54	13.2	9.5	3.9	FGP-48F8	5.45	2.25
FGP-SD24F	24 X 24	28 X 28	6.1	2.2	1.5	FGP-SD24F8	1.25	.85

Inlet
Filtration

FloGard®

Catch Basin Insert Filter

Grated Inlet Style

Oldcastle®
Stormwater Solutions

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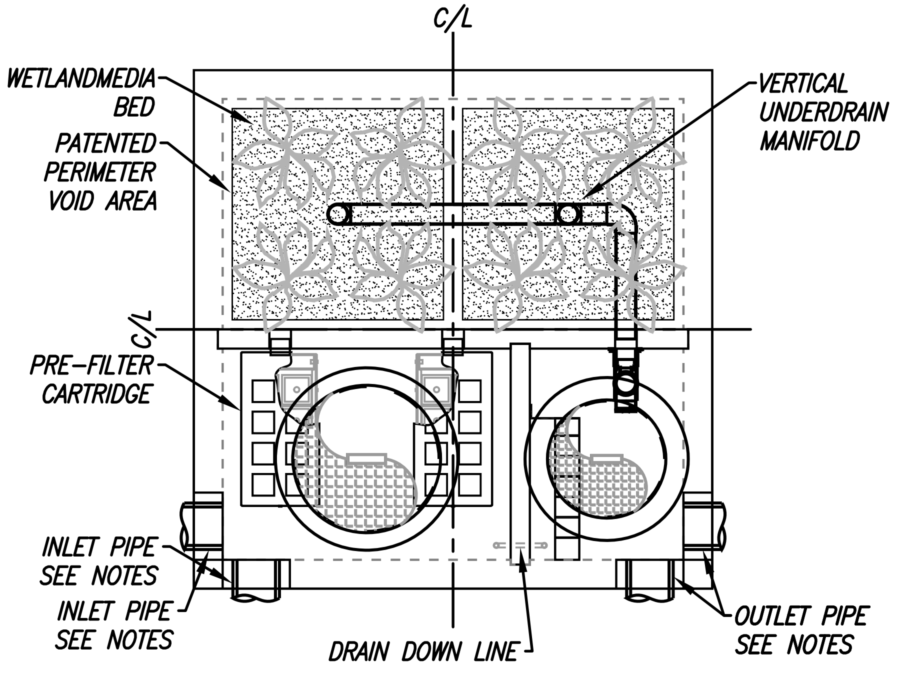
DRAWING NO.	REV	ECO	DATE	
FGP-0001	G	ECO-0142 JPR 7/13/16	JPR 11/3/06	SHEET 2 OF 2

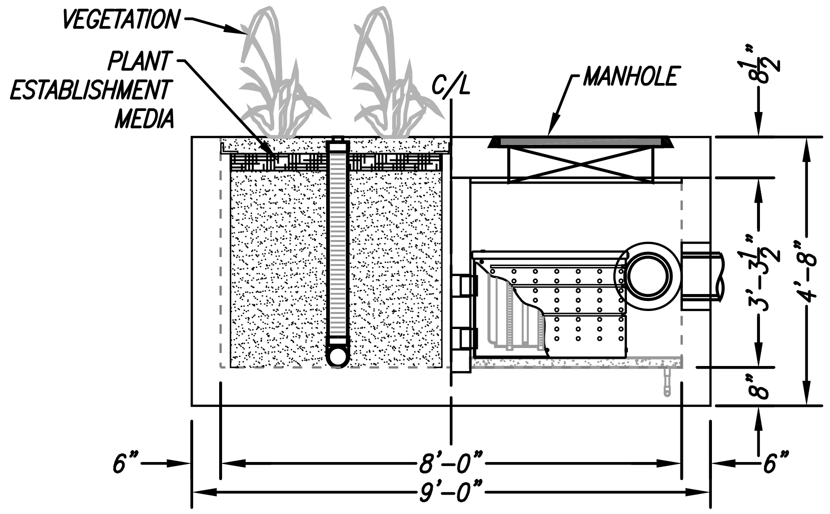
SITE SPECIFIC DATA

PROJECT NUMBER		----	
ORDER NUMBER		----	
PROJECT NAME		----	
PROJECT LOCATION		----	
STRUCTURE ID		----	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
10,076		N/A	
TREATMENT HGL AVAILABLE (FT)			N/K
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			----
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	----	PVC	8"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	0.00	PVC	8"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	4.08	4.08	4.08
SURFACE LOAD	PEDESTRIAN	N/A	PEDESTRIAN
FRAME & COVER	ø30"	OPEN PLANTER	ø24"
WETLANDMEDIA VOLUME (CY)			4.05
ORIFICE SIZE (DIA. INCHES)			ø1.09"

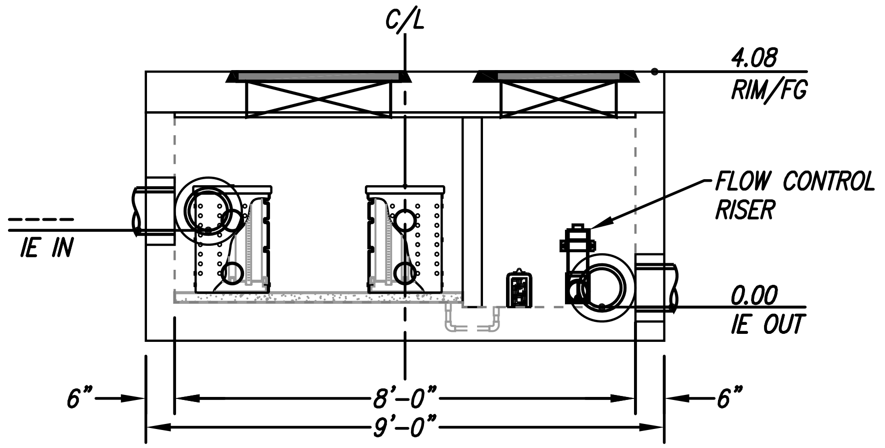
NOTES: PRELIMINARY NOT FOR CONSTRUCTION.



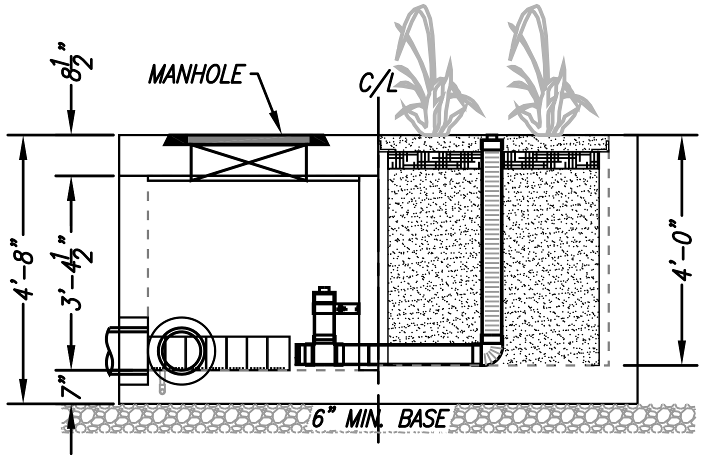
PLAN VIEW



LEFT END VIEW



ELEVATION VIEW



RIGHT END VIEW

INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
4. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATER TIGHT PER MANUFACTURERS STANDARD CONNECTION DETAIL.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
6. VEGETATION SUPPLIED AND INSTALLED BY OTHERS. ALL UNITS WITH VEGETATION MUST HAVE DRIP OR SPRAY IRRIGATION SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR RESPONSIBLE FOR CONTACTING BIO CLEAN FOR ACTIVATION OF UNIT. MANUFACTURERS WARRANTY IS VOID WITH OUT PROPER ACTIVATION BY A BIO CLEAN REPRESENTATIVE.

GENERAL NOTES

1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

REQUIRED TREATMENT VOLUME (CF)		10,076
DRAINDOWN DURATION (HOURS)		48
AVERAGE DISCHARGE RATE PER MWS UNIT(GPM)		26.17
OPERATING HEAD (FT)		3.4
WETLANDMEDIA INFILTRATION RATE (IN/HR)	OR	26
WETLANDMEDIA LOADING RATE (GPM/SF)		0.26

MODULAR WETLANDS

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Bio Clean
A Forterra Company

MWS-L-8-8-4'-0"-V
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

10/15/19 HAYDEN

BIO-1: Biofiltration

Definition

A biofiltration area is a vegetated shallow depression that is designed to receive and treat stormwater runoff from downspouts, piped inlets, or sheet flow from adjoining paved areas. A shallow ponding zone is provided above the vegetated surface for temporary storage of stormwater runoff. During storm events, stormwater runoff accumulates in the ponding zone and gradually infiltrates the surface and filters through the biofiltration soil media before being collected by an underdrain system.

Stormwater runoff treatment occurs through a variety of natural mechanisms as stormwater runoff filters through the vegetation root zone. In biofiltration areas, microbes and organic material in the biofiltration soil media help promote the adsorption of pollutants (e.g., dissolved metals and petroleum hydrocarbons) into the soil matrix. Plants utilize soil moisture and promote the drying of the soil through transpiration. Biofiltration areas are typically planted with native, drought-tolerant plant species that do not require fertilization and can withstand wet soils for at least 96 hours.

A schematic of a typical biofiltration area is presented in Figure E-7.

LID Ordinance Requirements

Biofiltration can be used as an alternative compliance measure.

Pollutant of Concern	Treated by Biofiltration?
Suspended solids	No
Total phosphorus	No
Total nitrogen	Yes
Total Kjeldahl nitrogen	Yes
Cadmium, total	No
Chromium, total	Yes
Copper, total	No
Lead, total	Yes
Zinc, total	No

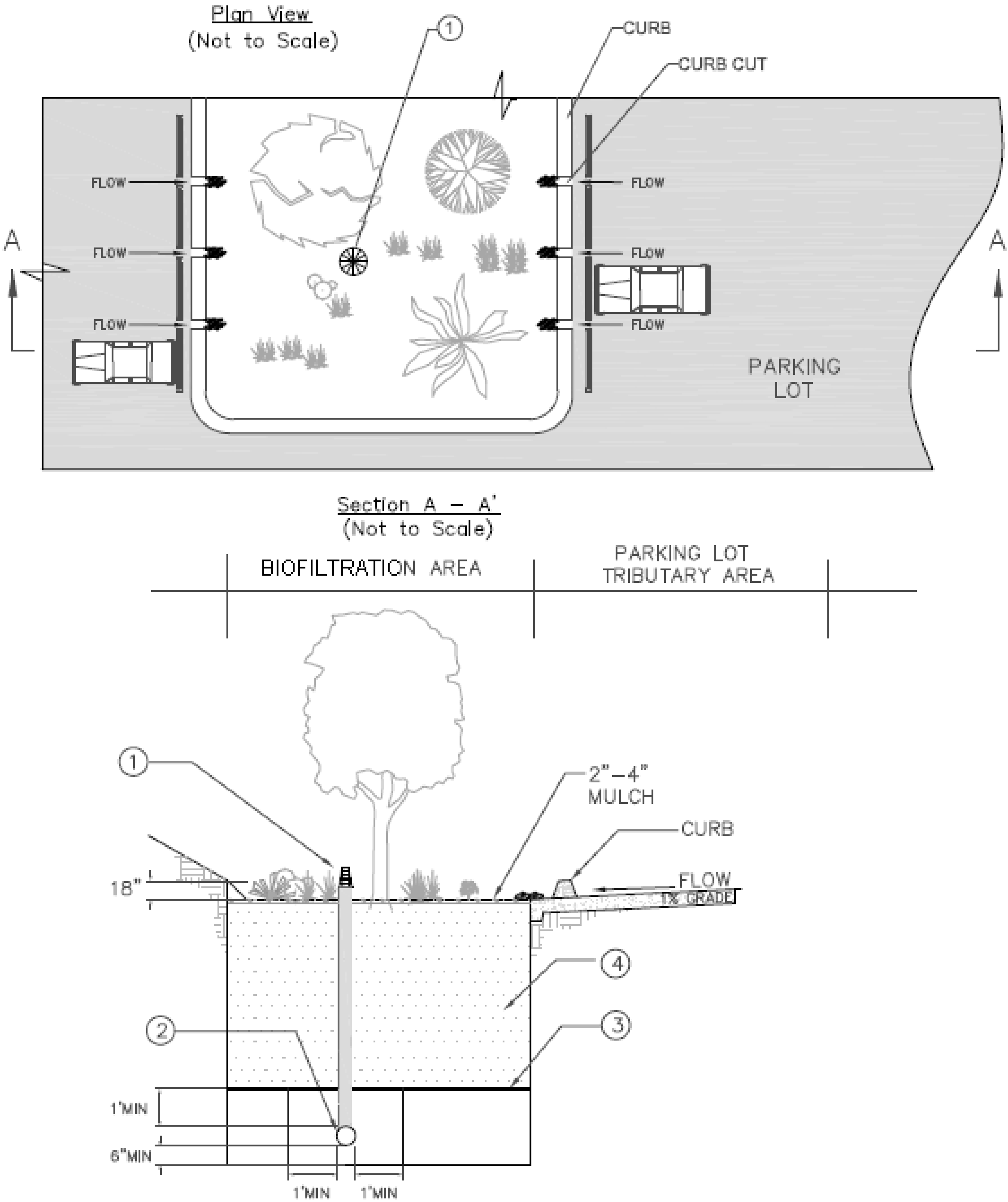
Source: Treatment Best Management Practices Performance, Los Angeles Regional Water Quality Control Board, December 9, 2013.

Advantages

- Has a low cost for installation
- Enhances site aesthetics
- Requires little maintenance

Disadvantages

- May require individual owner/tenants to perform maintenance



NOTES

① OVERFLOW DEVICE: VERTICAL RISER OR EQUIVALENT.

② PERFORATED 6" MIN PVC PIPE UNDERDRAIN SYSTEM. WHERE SOIL CONDITIONS ALLOW, OMIT THE UNDERDRAIN AND INSTALL AN APPROPRIATELY SIZED GRAVEL DRAINAGE LAYER (TYPICALLY A WASHED 57 STONE) BENEATH THE PLANTING MEDIA FOR ENHANCED INFILTRATION.

③ OPTIONAL CHOKING GRAVEL LAYER.

④ 2' MIN PLANTING MIX; 3' PREFERRED.

Figure E-7. Biofiltration Area Schematic

General Constraints and Implementation Considerations

- Biofiltration areas can be applied in various settings including, but not limited to:
  - Individual lots for rooftop, driveway, and other on-site impervious surface
  - Shared facilities located in common areas for individual lots
  - Areas within loop roads or cul-de-sacs
  - Landscaped parking lot islands
  - Within right-of-ways along roads
  - Common landscaped areas in apartment complexes or other multi-family housing designs
  - Parks and along open space perimeter
- If tire curbs are provided and parking stalls are shortened, cars are allowed to overhang the biofiltration area.
- Biofiltration areas must be located sufficiently far from structure foundations to avoid damage to structures (as determined by a certified structural or geotechnical engineer).
- Any parking areas bordering the biofiltration area must be monolithically poured concrete or deepended curb concrete to provide structural stability to the adjacent parking section.
- Geomembrane liners must be used in areas subject to spills or pollutant hot spots.
- During construction activities should avoid compaction of native soils below planting media layer or gravel zone.
- Stormwater runoff must be diverted around the biofiltration area during the period of vegetation establishment. If diversion is not feasible, the graded and seeded areas must be protected with suitable sediment controls (i.e., silt fences).All damaged areas should be repaired, seeded, or re-planted immediately.
- The general landscape irrigation system should incorporate the biofiltration area, as applicable.

Design Specifications

The following sections describe the design specifications for biofiltration areas.

Geotechnical

Due to the potential to contaminate groundwater, cause slope instability, impact surrounding structures, and potential for insufficient infiltration capacity, an extensive geotechnical site investigation must be conducted during the site planning process to verify site suitability for biofiltration. All geotechnical investigations must be performed according to the most recent GMED Policy GS 200.1. Soil infiltration rates and the groundwater table depth must be evaluated to ensure that conditions are satisfactory for proper operation of a biofiltration area. The project applicant must demonstrate through infiltration testing, soil logs, and the written opinion of a licensed civil engineer that sufficiently permeable soils exist on-site to allow the construction of a properly functioning biofiltration system.

Biofiltration areas are appropriate for soils with a minimum corrected in-situ infiltration rate of 0.3 in/hr. The geotechnical report must determine if the proposed project site is suitable for a biofiltration area and must recommend a design infiltration rate (see "Design Infiltration Rate" under the "Sizing" section). The geotechnical investigation should be such that a good understanding is gained as to how the stormwater runoff will move through the soil (horizontally or vertically) and if there are any geological conditions that could inhibit the movement of water.

Pretreatment

Pretreatment refers to design features that provide settling of large particles before stormwater runoff enters a stormwater quality control measure in order to reduce the long-term maintenance burden. Pretreatment should be provided to reduce the sediment load entering a biofiltration area in order to maintain the infiltration rate of the biofiltration area. To ensure that biofiltration areas are effective, the project applicant must incorporate pretreatment devices that provide sediment removal (e.g., vegetated swales, vegetated filter strips, sedimentation manholes, and proprietary devices). The use of at least two pretreatment devices is highly recommended for biofiltration areas.

Geometry

- Biofiltration areas must be sized to capture and treat 1.5 times the SWQDv that is not reliably retained on the project site with an 18-inch maximum ponding depth.
- The planting soil depth must be a minimum of two feet, although three feet is preferred. The planting soil depth should provide a beneficial root zone for the chosen vegetation and adequate water storage for the stormwater runoff. A deeper planting soil depth will also provide a smaller surface area footprint.
- A gravel storage layer below the biofiltration area soil media is required to provide adequate temporary storage to retain 1.5 times the SWQDv that is not reliably retained on the project site and to promote infiltration.

Sizing

Biofiltration areas are sized using a simple sizing method where 1.5 times the SWQDv that is not reliably retained on the project site must be completely filtered within 96 hours. If the incoming stormwater runoff flow rate is lower than the long term filtration rate, above ground storage does not need to be provided. If the incoming stormwater runoff flow rate is higher than the long term filtration rate, above ground storage shall be provided (see steps below).

Step 1: Calculate the design volume

Biofiltration areas should be sized to capture and treat 1.5 times the portion of the SWQDv (see Section 6 for SWQDv calculation procedures) that is not reliability retained on the project site, as calculated by the equation below:

$$V_B = 1.5 \times (SWQDv - V_R)$$

Where:

V_B = Biofiltration volume [ft^3];
SWQDv = Stormwater quality design volume [ft^3]; and
V_R = Volume of stormwater runoff reliably retained on-site [ft^3].

Step 2: Calculate the design infiltration rate

Determine the corrected in-situ infiltration rate (f_{design}) of the native soil using the procedures described in the most recent GMED Policy GS 200.1.

Step 3: Calculate the surface area

Select a surface ponding depth (d) that satisfies the geometric criteria and meets the site constraints. Selecting a deeper ponding depth (up to 1.5 ft) generally yields a smaller footprint, however, it will require greater consideration for public safety, energy dissipation, and plant selection.

Calculate the time for the selected ponding depth to filter through the planting media using the following equation:

$$\mathrm{d} = t_p \times \frac{\mathrm{f}_{\mathrm{design}}}{12}$$

Where:

d = Ponding depth (max 1.5 ft) [ft];
t_p = Required detention time for surface ponding (max 96 hr) [hr]; and
f_{design} = Design infiltration rate [in/hr].

If t_p exceeds 96 hours, reduce surface ponding depth (d). In nearly all cases, t_p should not approach 96 hours unless f_{design} is low.

Calculate the required infiltrating surface (filter bottom area) using the following equation:

$$A = \frac{V_B}{d}$$

Where:

A = Bottom surface area of biofiltration area [ft^2];
V_B = Biofiltration design volume [ft^3]; and
d = Ponding depth (max 1.5 ft) [ft].

Flow Entrance and Energy Dissipation

Maintain a minimum slope of 1 percent for pervious surfaces and 0.5 percent for impervious surfaces to the biofiltration area inlet. The following types of flow entrance can be used for biofiltration cells:

- Level spreaders (i.e., slotted curbs) can be used to facilitate sheet flow.
- Dispersed, low velocity flow across a landscape area. Dispersed flow may not be possible given space limitations or if the biofiltration area is controlling roadway or parking lot flows where curbs are mandatory.
- Dispersed flow across pavement or gravel and past wheel stops for parking areas.
- Flow spreading trench around perimeter of biofiltration area. May be filled with pea gravel or vegetated with 3:1 side slopes similar to a swale. A vertical-walled open trench may also be used at the discretion of LACDPW.
- Curb cuts for roadside or parking lot areas, if approved by LACDPW: curb cuts should include rock or other erosion controls in the channel entrance to dissipate energy. Flow entrance should drop two to three inches from curb line and provide an area for settling and periodic removal of sediment and coarse material before flow dissipates to the remainder of the biofiltration area.
- Piped entrances, such as roof downspouts, should include rock, splash blocks, or other erosion controls at the entrance to dissipate energy and disperse flows.
- Woody plants (trees, shrubs, etc.) can restrict or concentrate flows and can be damaged by erosion around the root ball and must not be placed directly in the entrance flow path.

Drainage

Biofiltration areas must be designed to drain below the planting soil in less than 96 hours. Soils must be allowed to dry out periodically in order to restore hydraulic capacity to receive stormwater runoff from subsequent storm events, maintain infiltration rates, maintain adequate soil oxygen levels for healthy soil biota and vegetation, and provide proper soil conditions for biodegradation and retention of pollutants.

Underdrain

Biofiltration areas require an underdrain to collect and discharge stormwater runoff that has been filtered through the soil media, but not infiltrated, to another stormwater quality control measure, storm drain system, or receiving water. The underdrain must have a mainline diameter of eight inches using slotted PVC SDR 26 or PVC C9000. Slotted PVC allows for pressure water cleaning and root cutting, if necessary. The slotted pipe should have two to four rows of slots cut perpendicular to the axis of the pipe or at right angles to the pitch of corrugations. Slots should be 0.04 to 0.1 inches wide with a length of 1 to 1.25 inches. Slots should be longitudinally-spaced such that the pipe has a minimum of one square inch opening per lineal foot and should face down.

The underdrain should be placed in a gravel envelope (Class 2 Permeable Material per Caltrans Spec. 68-1.025) that measures three feet wide and six inches deep. The underdrain is elevated from the bottom of the biofiltration area by six inches within the gravel envelope to create a fluctuating anaerobic/aerobic zone below the underdrain to facilitate denitrification within the anaerobic/anoxic zone and reduce nutrient concentrations. The top and sides of the underdrain pipe should be covered with gravel to a minimum depth of 12 inches. The underdrain and gravel envelope should be covered with a geomembrane liner to prevent clogging. The following aggregate should be used for the gravel envelope:

Particle Size (ASTM D422)	% Passing by Weight
¾ inch	100%
¼ inch	30-60%
#8	20-50%
#50	3-12%
#200	0-1%

Underdrains should be sloped at a minimum of 0.5 percent and must drain freely to an approved discharge point.

Rigid non-perforated observation pipes with a diameter equal to the underdrain diameter should be connected to the underdrain to provide a clean-out port as well as an observation well to monitor drainage rates. The wells/clean-outs should be connected to the perforated underdrain with the appropriate manufactured connections. The wells/clean-outs should extend six inches above the top elevation of the biofiltration area mulch, and should be capped with a lockable screw cap. The ends of underdrain pipes not terminating in an observation well/clean-out should also be capped.

Hydraulic Restriction Layer

Lateral infiltration pathways may need to be restricted due to the close proximity of roads, foundations, or other infrastructure. A geomembrane liner, or other equivalent waterproofing, may be placed along the vertical walls to reduce lateral flows. This geomembrane liner must have a minimum thickness of 30 mils and meet the requirements of Table E-12. Generally, waterproof barriers should not be placed on the bottom of the biofiltration unit, as this would prevent incidental infiltration which is important to meeting the required pollutant load reduction.

Table E-12. Geomembrane Liner Specifications for Biofiltration Areas

Parameter	Test Method	Specifications
Material		Nonwoven geomembrane liner
Unit weight		8 oz/yd^3 (minimum)
Filtration rate		0.08 in/sec (minimum)
Puncture strength	ASTM D-751 (Modified)	125 lbs (minimum)
Mullen burst strength	ASTM D-751	400 lb/in^2 (minimum)
Tensile strength	AST D-1682	300 lbs (minimum)
Equiv. opening size	US Standard Sieve	No. 80 (minimum)

Planting/Storage Media

- The planting media placed in the biofiltration area should achieve a long-term, in-place infiltration rate of at least 5 in/hr. Higher infiltration rates of up to 12 in/hr are permissible. The biofiltration soil media must retain sufficient moisture to support vigorous plant growth.
- The planting media mix must consist of 60 to 80 percent sand and 20 to 40 percent compost.
- Sand should be free of wood, waste, coatings such as clay, stone dust, carbonate, or any other deleterious material. All aggregate passing the No. 200 sieve size should be non-plastic. Sand for biofiltration should be analyzed by an accredited laboratory using #200, #100, #40, #30, #16, #8, #4, and 3/8 sieves (ASTM D422 or as approved by the local permitting authority) and meet the following gradations (Note: all sand complying with ASTM C33 for fine aggregate comply with the gradation requirements listed below):

Particle Size (ASTM D422)	% Passing by Weight
3/8 inch	100%
#4	90-100%
#8	70-100%
#16	40-95%
#30	15-70%
#40	5-55%
#110	0-15%
#200	0-5%

Note: The gradation of the sand component of the biofiltration soil media is believed to be a major factor in the infiltration rate of the media mix. If the desired hydraulic conductivity of the biofiltration soil media cannot be achieved within the specified proportions of sand and compost (#2), then it may be necessary to utilize sand at the coarser end of the range specified minimum percent passing.

- Compost should be a well-decomposed, stable, weed-free organic matter source derived from waste materials including yard debris, wood wastes, or other organic material not including manure or biosolids meeting standards developed by the USCC. The product shall be certified through the USCC STA Program (a compost testing and information disclosure program). Compost quality shall be verified via a laboratory analysis to be:
    - Feedstock materials must be specified and include one or more of the following: landscape/yard trimmings, grass clippings, food scraps, and agricultural crop residues.
    - pH between 6.5 and 8.0 (may vary with plant palette)
    - Organic Matter: 35 to 75 percent dry weight basis
    - Carbon and Nitrogen Ratio: 15:1 < C:N < 25:1
    - Maturity/Stability: Compost must have a dark brown color and a soil-like odor. Compost exhibiting a sour or putrid smell, containing recognizable grass or leaves, or is hot (120°F) upon delivery or rewetting is not acceptable.
    - Toxicity: any one of the following measures is sufficient to indicate non-toxicity:
        - NH_4:NH_3 < 3
        - Ammonium < 500 ppm, dry weight basis
        - Seed germination > 80 percent of control
        - Plant trials > 80 percent of control
        - Solvita® > 5 index value
    - Nutrient content:
        - Total Nitrogen content ≥ 0.9 percent preferred
        - Total Boron should be < 80 ppm; soluble boron < 2.5 ppm
    - Salinity: < 6.0 mmhos/cm
    - Compost for biofiltration area should be analyzed by an accredited laboratory using #200, ¼-inch, ½-inch, and 1-inch sieves (ASTM D422) and meet the gradation requirements in the table below:

Particle Size (ASTM D422)	% Passing by Weight
1 inch	99-100
½ inch	90-100
¼ inch	40-90
#200	2-10

Tests should be sufficiently recent to represent the actual material that is anticipated to be delivered to the site. If processes or sources used by the supplier have changed significantly since the most recent testing, new tests should be requested.

The gradation of compost used in biofiltration soil media is believed to play an important role in the saturated infiltration rate of the media. To achieve a higher saturated infiltration rate, it may be necessary to utilize compost at the coarser end of the range (minimum percent passing). The percent passing the #200 sieve (fines) is believed to be the most important factor in hydraulic conductivity.

In addition, coarser compost mix provides more heterogeneity of the biofiltration soil media, which is believed to be advantageous for more rapid development of soil structure needed to support healthy biological processes. This may be an advantage for plant establishment with lower nutrient and water input.

- Biofiltration soil media not meeting the above criteria should be evaluated on a case-by-case basis. Alternative biofiltration soil media must meet the following specifications:

  "Soils for biofiltration facilities must be sufficiently permeable to infiltrate stormwater runoff at a minimum of rate of 5 in/hr during the life of the facility, and provide sufficient retention of moisture and nutrients to support healthy vegetation." The following steps shall be followed by LACDPW to verify that alternative biofiltration soil media mixes meet the specification:

  - Submittals – The applicant must submit to LACDPW for approval:
    - A sample of mixed biofiltration soil media.
    - Certification from the soil supplier or an accredited laboratory that the biofiltration soil media meets the requirements of this specification.
    - Certification from an accredited geotechnical testing laboratory that the biofiltration soil media has an infiltration rate between 5 and 12 in/hr.
    - Organic content test results of the biofiltration soil media. Organic content test shall be performed in accordance with the Testing Methods for the Examination of Compost and Composting (TMECC) 05.07A, "Loss-On-Ignition Organic Matter Method".
    - Organic grain size analysis results of mixed biofiltration soil media performed in accordance with ASTM D422, Standard Test Method for Particle Size Analysis of Soils.
    - A description of the equipment and methods used to mix the sand and compost to produce the biofiltration soil media.
  - The name of the testing laboratory(ies) and the following information:

        - Contact person(s)
        - Address(es)
        - Phone contact(s)
        - E-mail address(es)
        - Qualifications of laboratory(ies) and personnel including date of current certification by STA, ASTM, or approved equal.
    - Biofiltration soils shall be analyzed by an accredited laboratory using #200 and ½-inch sieves (ASTM D422 or as approved by LACDPW), and meet the gradation described in the table below:

Particle Size (ASTM D422)	% Passing by Weight
½ inch	97-100
#200	2-5

- Biofiltration soil media shall be analyzed by an accredited geotechnical laboratory for the following tests:
    - Moisture – density relationships (compaction tests) must be conducted on biofiltration soil media. Biofiltration soil media for the permeability test shall be compacted to 85 to 90 percent of the maximum dry density (ASTM D1557).
    - Constant head permeability testing in accordance with ASTM D2434 shall be conducted on a minimum of two samples with a 6-inch mold and vacuum saturation.
- Mulch is recommended for the purpose of retaining moisture, preventing erosion, and minimizing weed growth. Projects subject to the California Model Water Efficiency Landscaping Ordinance (or comparable local ordinance) will be required to provide at least 2 inches of mulch. Aged mulch, also called compost mulch, reduces the ability of weeds to establish, keeps soil moist, and replenishes soil nutrients. Biofiltration areas must be covered with two to four inches (average three inches) of mulch at the start and an annual placement (preferably in June after weeding) of one to two inches of mulch beneath plants.
- The planting media design height must be marked appropriately, such as a collar on the overflow device or with a stake inserted two feet into the planting media and notched, to show biofiltration surface level and ponding level.

Vegetation

Prior to installation, a licensed landscape architect must certify that all plants, unless otherwise specifically permitted, conform to the standards of the current edition of American Standard for Nursery Stock as approved by the American Standards Institute, Inc. All plant grades shall be those established in the current edition of American Standards for Nursery Stock.

- Shade trees must have a single main trunk. Trunks must be free of branches below the following heights:

CALIPER (in)	Height (ft)
1½-2½	5
3	6

- Plants must be tolerant of summer drought, ponding fluctuations, and saturated soil conditions for 96 hours.
- It is recommended that a minimum of three types of tree, shrubs, and/or herbaceous groundcover species be incorporated to protect against facility failure due to disease and insect infestations of a single species.
- Native plant species and/or hardy cultivars that are not invasive and do not require chemical inputs must be used to the maximum extent practicable.

The biofiltration area should be vegetated to resemble a terrestrial forest community ecosystem, which is dominated by understory trees, a shrub layer, and herbaceous ground cover. Select vegetation that:

- Is suited to well-drained soil;
- Will be dense and strong enough to stay upright, even in flowing water;
- Has minimum need for fertilizers;
- Is not prone to pests and is consistent with Integrated Pest Management practices; and
- Is consistent with local water conservation ordinance requirements.

Irrigation System

Provide an irrigation system to maintain viability of vegetation, if applicable. The irrigation system must be designed to local code or ordinance specifications.

Restricted Construction Materials

The use of pressure-treated wood or galvanized metal at or around a biofiltration area is prohibited.

Overflow Device

An overflow device is required at the 18-inch ponding depth. The following, or equivalent, should be provided:

- A vertical PVC pipe (SDR 26) to act as an overflow riser.
- The overflow riser(s) should be eight inches or greater in diameter, so it can be cleaned without damage to the pipe.

- The inlet to the riser should be at the ponding depth (18 inches for fenced biofiltration areas and 6 inches for areas that are not fenced), and be capped with a spider cap to exclude floating mulch and debris. Spider caps should be screwed in or glued (e.g., not removable). The overflow device should convey stormwater runoff in excess of 1.5 times the SWQDv that is not reliably retained on the project site to an approved discharge location (another stormwater quality control measure, storm drain system, or receiving water).

Maintenance Requirements

Maintenance and regular inspections are important for proper function of biofiltration areas. Biofiltration areas require annual plant, soil, and mulch layer maintenance to ensure optimal infiltration, storage, and pollutant removal capabilities. In general, biofiltration maintenance requirements are typical landscape care procedures and include:

- Irrigate plants as needed during prolonged dry periods. In general, plants should be selected to be drought-tolerant and not require irrigation after establishment (two to three years).
- Inspect flow entrances, ponding area, and surface overflow areas periodically, and replace soil, plant material, and/or mulch layer in areas if erosion has occurred. Properly-designed facilities with appropriate flow velocities should not cause erosion except potentially during in extreme events. If erosion occurs, the flow velocities and gradients within the biofiltration area and flow dissipation and erosion protection strategies in the pretreatment area and flow entrance should be reassessed. If sediment is deposited in the biofiltration area, identify the source of the sediment within the tributary area, stabilize the source, and remove excess surface deposits.
- Prune and remove dead plant material as needed. Replace all dead plants, and if specific plants have a high mortality rate, assess the cause and, if necessary, replace with more appropriate species.
- Remove weeds as needed until plants are established. Weed removal should become less frequent if the appropriate plant species are used and planting density is attained.
- Select the proper soil mix and plants for optimal fertility, plant establishment, and growth to preclude the use of nutrient and pesticide supplements. By design, biofiltration facilities are located in areas where phosphorous and nitrogen levels are often elevated such that these should not be limiting nutrients. Addition of nutrients and pesticides may contribute pollutant loads to receiving waters.
- In areas where heavy metals deposition is likely (i.e., tributary areas to industrial, vehicle dealerships/repair, parking lots, roads), replace mulch annually. In areas where metals deposition is less likely (i.e., residential lots), replace or add mulch as needed to maintain a two to three inch depth at least once every two years.

- Analyze soil for fertility and pollutant levels if necessary. Biofiltration soil media are designed to maintain long-term fertility and pollutant processing capability.
- Eliminate standing water to prevent vector breeding.
- Inspect overflow devices for obstructions or debris, which should be removed immediately. Repair or replace damaged pipes upon discovery.
- Inspect, and clean if necessary, the underdrain.

A summary of potential problems that need to be addressed by maintenance activities is presented in Table E-13.

The County requires execution of a maintenance agreement to be recorded by the property owner for the on-going maintenance of any privately-maintained stormwater quality control measures. The property owner is responsible for compliance with the maintenance agreement. A sample maintenance agreement is presented in Appendix H.

Table E-13. Biofiltration Troubleshooting Summary

Problem	Conditions When Maintenance Is Needed	Maintenance Required
Vegetation	Overgrown vegetation	Mow and prune vegetation as appropriate.
	Presence of invasive, poisonous, nuisance, or noxious vegetation or weeds	Remove this vegetation and plant native species as needed.
Trash and Debris	Trash, plant litter, and dead leaves present	Remove and properly dispose of trash and debris.
Irrigation (if applicable)	Not functioning correctly	Check irrigation system for clogs or broken lines and repair as needed.
Inlet/Overflow	Inlet/overflow areas clogged with sediment and/or debris	Remove material.
	Overflow pipe blocked or broken	Repair as needed.
Erosion/Sediment Accumulation	Splash pads or spreader incorrectly placed Presence of erosion or sediment accumulation	Check inlet structure to ensure proper function. Repair, or replace if necessary, the inlet device. Repair eroded areas with gravel as needed. Re-grade the biofiltration area as needed.
Contaminants and Pollution	Any evidence of oil, gasoline, contaminants, or other pollutants	Remove any evidence of visual contamination from floatables such as oil and grease.
Standing water	Standing water observed more than 96 hours after storm event	Inspect, and clean as needed, the underdrain to ensure proper function. Clear clogs as needed. Remove and replace planter media (sand, gravel, topsoil, mulch) and vegetation.

Attachment B

Geotechnical Investigation

Geotechnical Investigation Report

for

Industrial Development Site
16008 Amar Road
City of Industry, California

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LANGAN

8 June 2022
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APPENDICES

1. INTRODUCTION AND PURPOSE

As requested by Hines, and in accordance with our Proposal for Geotechnical Engineering Services, dated 6 May 2022, which was subsequently authorized, Langan Engineering and Environmental Services, Inc., (LANGAN) has prepared a preliminary geotechnical report for the proposed industrial development (Project) at 16008 Amar Road, California (Site).

LANGAN's scope of services included the following:

- Researching, reviewing published geologic, environmental and seismic reports and maps containing the Site and vicinity;
- Conducting exploratory borings;
- Laboratory testing of select samples; and,
- Compilation of this geotechnical investigation report including an evaluation of site geologic hazards, conclusions and recommendations for the proposed development.

This report was prepared for design purposes and summarizes LANGAN's understanding of geotechnical and engineering geological aspects of the Site, including existing site conditions; LANGAN's site investigation and findings; and provides geotechnical recommendations for building foundations, grading and remedial grading for the proposed industrial warehouse. Recommendations presented herein are in accordance with the 2019 California Building Code (2019 CBC) and 2020 Los Angeles County Building Code (LADBS 2020). Elevations referenced herein are with respect to North American Vertical Datum of 1988 (NAVD 88), unless noted otherwise.

2. PROJECT OVERVIEW

2.1 Site Description

The approximate 10-acre Site is located in City of Industry, California see Figure 1. The site is bound by industrial developments to the west, a channel to the south, Amar Road to the north and Echelon Avenue Street to the east. A site vicinity map is shown in Figure 1. The site is currently occupied by commercial buildings and light industrial buildings including warehouses.

2.2 Proposed Development

Based on the Conceptual Site Plan by Ware Malcomb dated 30 March 2022, we understand the proposed development includes demolition of existing buildings and asphalt paved parking and roads and construction of an approximately 198,000 square foot industrial building.

Column loads have not been provided at the time of this report. Based on similar projects we have assumed typical interior column dead load plus live loads of 75 to 120 kips and 5 to 7 kips per linear feet for continuous wall footings around the building perimeter.

3. AVAILABLE INFORMATION REVIEW

Information that was reviewed included publicly available geotechnical and geologic information at or near the Site and publicly available geologic reports. Referenced information included reports, maps and websites from the agencies listed below:

- United States Geological Survey (USGS),
- California Geological Survey (CGS),
- Federal Emergency Management Agency (FEMA), and

- California Geologic Energy Management Division (CalGEM) previously known as the Division of Oil, Gas & Geothermal Resources (DOGGR).

3.1 Regional and Local Geologic Setting

The site is located in the Los Angeles (LA) Basin at the boundary of the Transverse Ranges and Peninsular geomorphic provinces. To the north, the Transverse Ranges are a series of mountains and valleys trending roughly east-west, oblique to the common northwest structural grain of coastal California. To the south, the Peninsular Ranges is a series of mountain ranges and valleys that trend northwest, sub-parallel to the San Andreas fault system. In this region, the San Jose Hills forms the inferred boundary between the two geomorphic provinces (Morton, 2003).

The LA Basin, which is the surface expression of a deep structural trough, has been subdivided into four primary structural blocks distinguished from one another by contrasting basement rock types and stratigraphy. These structural blocks are generally separated by zones of faulting along which movement has occurred intermittently since middle Miocene time (Yerkes and others, 1965).The site is located in the southcentral portion of the Northeastern Block of the basin, a roughly triangular-shaped area bounded on the south by the Elsinore/Whittier fault, on the east by the Chino fault, and on the north by the Sierra Madre/Cucamonga fault.

Locally, the site is within the San Gabriel Valley, an alluvial valley filled with Quaternary (about the last 2.6 million years) sediments sourced from the San Gabriel Mountains to the north. The valley drains to the south through the Whittier Narrows via the San Gabriel River and Rio Hondo. The site is immediately west of the San Jose Hills and east of the Puente Hills, both composed of Tertiary-aged (about 66 to 2.6 million years) sedimentary rocks (Morton, 2003). The site is mapped as underlain by young alluvial-fan deposits (Qyf3), described as slightly to moderately consolidated silts, sands with coarse-sand and gravel sections (Morton, 2003). A geologic map of the area is shown in Figure 3.

3.2 Geologic/Geotechnical Hazards

LANGAN's geologic hazard review was performed in general accordance with CGS "Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California" and the 2019 CBC. The following subsections present the results of the review of geologic hazards as they pertain to the Site.

> <u>Regional Faulting</u> – We reviewed the CGS Fault Activity Map of California and the USGS Quaternary Fault and Fold Database to identify mapped faults within 100 kilometers of the Site. The closest known faults to the site are the Walnut Creek fault 0.3 kilometers (0.2 mile) northwest of the Site, the San Jose fault 4.7 kilometers (2.9 miles) east of the Site, and the Whittier fault approximately 7.9 kilometers (4.9 miles) south of the site. Figures 2A and 2B show the site location relative to the nearby faults.
>
> <u>Regional Seismicity</u> – A search of the USGS ANSS Comprehensive Earthquake Catalog (ComCat), using a web-based Earthquake Archive Search and URL Builder tool, found that as of 12 May 2022, 45 earthquakes with magnitudes greater than 5.0 have occurred within a 100-km radius of the Site since 1900. A summary of the USGS ANSS ComCat reported earthquake events are provided in Appendix A.
>
> The Site is located in a seismically active area that has historically been affected by generally moderate to occasionally high levels of ground motion. Due to the Site's close proximity to several currently mapped active faults, the proposed development will likely experience

moderate to occasionally high ground shaking from these faults as well as ground shaking from other seismically active areas of southern California.

- Surface Rupture – Alquist-Priolo Earthquake Fault Zones (APEFZ) are regulatory zones established by California's State Geologist around active faults with the potential to cause surface rupture. The zones vary in width; however, they average approximately 1/4 mile wide. According to the CGS map titled "Earthquake Zones of Required Investigation, Baldwin Park Quadrangle" released 25 March 1999, the Site is not mapped within a currently established APEFZ of required investigation. The Whittier earthquake fault zone is the closest APEFZ to the site, 7.7 km (4.8 miles) south of the site.

  Historically, ground surface fault ruptures closely follow the traces of geologically young faults. The site is not within an APEFZ and no active or potentially active faults exist on the site. In a seismically active area, the remote possibility exists for future faulting in areas where no faults previously existed; however, we conclude the risk of surface faulting at the site is low.

- Liquefaction - Liquefaction is a transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength resulting from the buildup of excess pore water pressure, especially during earthquake-induced cyclic loading. Soil susceptible to liquefaction includes loose to medium dense sand and gravel and low-plasticity silts. According to the CGS map titled "Earthquake Zones of Required Investigation, Baldwin Park Quadrangle" released 25 March 1999, the Site is mapped in a zone of required investigation for liquefaction as shown in Figure 4. Liquefaction is evaluated in Section 6.2.
- Lateral Spreading – Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. The surficial blocks are transported downslope or in the direction of a free face, such as a slope, by earthquake and gravitational forces. The Site is mapped within a zone of required investigation for liquefaction and a channel is located adjacent to the southern property boundary. However, based on analysis presented in Section 6.2, based on the density and fines contents of the soils at the site, liquefaction is not likely so the and surrounding area is relatively flat, therefore we conclude -induced ground deformations include ground surface settlement and differential settlement resulting from liquefaction of saturated cohesionless soils and cyclic densification, or differential compaction, of unsaturated sands and gravels caused by earthquakes. The potential for cyclic densification and liquefaction induced settlement are evaluated in Section 6.2.
- Earthquake-Induced Landslide Areas – Based on CGS map titled "Earthquake Zones of Required Investigation, Baldwin Park Quadrangle", released 25 March 1999, the Site is not mapped in a zone of required investigation for earthquake induced landslides. Additionally, the site and surrounding area is relatively flat therefore we conclude the potential for landslides onsite is low.
- Historic High Groundwater – Based on the 1998 CGS report "Seismic Hazard Zone Report for the Baldwin Park 7.5-Minute Quadrangle", the historic high groundwater depth at the site is between approximately 30 and 35 feet. Historical Highest Ground Water Map is shown on Figure 6.
- Flood Mapping – Based on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM) Number 060371695F, dated 26 September 2008, the site is mapped within Zone X 'Area of Minimal Flood Hazard'. Flood Map is shown on Figure 5.

- Tsunami and Seiche – A tsunami is a long high sea wave caused by an earthquake, submarine landslide, or other underwater disturbance. A seiche is an oscillation of surface water in an enclosed or semi-enclosed basin such as a lake, bay, or harbor. The site is not located near the coast or body of water that has the potential to generate a tsunami or seiche. The site is outside of the mapped tsunami inundation zone (CGS, 2021).
- Subsidence – Land subsidence may be induced from withdrawal of oil, gas, or water from wells. Based on a search of the Cal GEM (formerly the Division of Oil, Gas & Geothermal Resources (DOGGR)) Well Finder online tool, there are no wells present near the Site. The closest active well is 1.2 miles southeast of the site in the Walnut Oil field, therefore we consider the potential for subsidence from oil extraction to be low.
- Expansive Soils – Expansive soils occur when the moisture content in the soil causes swelling or shrinking as a result of cyclic wet/dry weather cycles, installation of irrigation systems, change in landscape plantings, or changes in grading. Swelling and shrinking soils can result in differential movement of structures including floor slabs and foundations, and site work including hardscape, utilities, and sidewalks. The 2019 CBC defines potentially expansive soils as soils with expansion indices (EI) greater than 20. Expansive potential of the soils are discussed in Section 6.3.

4. SUBSURFACE INVESTIGATION

LANGAN's geotechnical field investigation included eight (8) borings, identified as LB-1 through LB-8. A percolation test (LP-1) was performed in LB-8. Borings were drilled by ABC Liovin Drilling using hollow-stem auger techniques with a truck-mounted CME-75 drill rig on 16 May 2022. Two borings were completed to a depth of 6.5 feet, four borings were completed to a depth of 26.5 feet and one boring was completed to a depth of 51.5 feet and the boring used for percolation test is completed to depth of 10 feet. The borings were performed under full-time observation of a LANGAN field engineer. Boring and percolation test locations are shown on Figure 7.

At select boring locations, bulk samples were collected from the upper 5 feet. At each boring location, Standard Penetration Tests (SPT[1]) and ring samples were collected at select depths using a 3.0-inch-outer-diameter split-barrel California sampler lined with 2.42-inch-inner-diameter brass rings in accordance with ASTM D3550. Soil samples were visually examined and classified in the field in accordance with the Unified Soil Classification System (USCS). Upon completion, the borings were backfilled with cement-grout-slurry and patched with concrete, the surface was brought to approximately pre-existing condition. Excess soil cuttings were placed in 55-gallon drums. Boring logs are included in Appendix B.

Prior to performing the subsurface investigation, borings were located and marked by a field engineer from our office. Underground Service Alert of Southern California (DigAlert) was contacted to locate and mark known public underground utilities present within the public rights-of-way.

4.1 Percolation Testing

Percolation testing was performed in boring LB-8/ LP-1 at a depth of approximately 10 feet. The tests were performed on 17 May 2022 under full-time observation of a LANGAN field engineer. The percolation test consisted of measuring the drop in water over time in a 2-inch diameter

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[1] The Standard Penetration Test is a measure of the soil density and consistency. The SPT N-value is defined as the number of blows required to drive a 2-inch outer diameter split-barrel sampler 12-inches after an initial penetration of 6 inches, using a 140-pound hammer free falling of a height of 30-inches (ASTM D1586).

polyvinyl chloride (PVC) pipe with a solid end cap and a minimum of 5 feet of slotted section at the bottom of the boring from 5 to 10 feet. A filter pack was poured around the slotted PVC section. Subsurface conditions where the infiltration test was conducted was mainly a silt layer

The percolation tests were performed in general accordance with the County of Los Angeles Department of Public Works "GS200.1 Guidelines for Geotechnical Investigation and Reporting Low Impact Development Stormwater Infiltration" dated 30 June 2021. Percolation test results are provided in Appendix C. Listed below are the average stabilized and design infiltration rate.

Table 1 – Percolation Results

Boring Location	Test Type	Average Stabilized Rate (inch-per-hour)	Soil Type at Test Depth	Design Infiltration Rate (inch-per-hour)
LB-8 / LP-1	Falling Head	1.0	Clay SAND (SC)	0.06

4.2 Laboratory Testing

Laboratory testing was performed by GeoLogic Associates and laboratory test results are attached in Appendix D. The laboratory test program included the following tests:

- Moisture and Dry Density – ASTM D2937
- Atterberg Limits – ASTM D4318
- Passing #200 Sieve – ASTM D1140
- Direct Shear – ASTM D3080
- Modified Proctor – ASTM D 1557
- Electrical Resistivity – CTM 643
- Chloride Content – CTM 422
- Sulfate Content – CTM 417
- Soil pH – CTM 643
- R-Value – CA Method 301
- Expansion Index – ASTM D4829

5. SUBSURFACE INVESTIGATION RESULTS

LANGAN's interpretation of the subsurface conditions is based on reported and encountered during our field investigation. In general, subsurface conditions within the Site consist of undocumented fill and alluvial deposits. Refer to Figure 8 for generalized subsurface cross-sections. Boring logs are attached in Appendix B.

- Undocumented Fill (afu) – Undocumented fill was encountered under asphalt pavement at the boring locations to a depth of 4 to 5 feet and consisted of low and high plasticity brown to dark brown, sandy clay or silty clay with varying amounts of silt or sand. Asphalt pavement had a thickness of 3.5 to 5 inches. Aggregate base where encountered had a thickness of 3 to 6 inches.

  Expansive index testing of the upper 5 feet in LB-6 resulted in an expansive index of 84 or medium expansive potential. A modified proctor test of the upper 5 feet in LB-3 resulted in a maximum dry density of 117 pounds per cubic feet and an optimum moisture content of 13 percent. Direct shear testing of a remolded sample from LB-3 resulted in a friction angle of approximately 29 degrees and cohesion of 100 pounds per square feet for peak and ultimate values.

- Alluvial deposits (Qa) – Alluvial deposits encountered under the undocumented fill consisted of interbedded brown to dark brown clay, sandy clay and sandy silt and silty to clayey sand and sands with varying amounts of gravel. Alluvial deposits identified as cohesive had raw SPT blow counts of 13 to 27 blows per foot while alluvial deposits identified as cohesionless had typical raw SPT blow counts of 20 to 70, on boring had a localized looser zone with a raw SPT blow county of 15 blows per foot.

- Groundwater – Groundwater was not encountered to the maximum depth explored of 50 feet. The historic high groundwater depth at the site is between approximately 30 and 35 feet according to the 1998 CGS report "Seismic Hazard Zone Report for the Baldwin Park 7.5-Minute Quadrangle".

6. GEOTECHNICAL DESIGN RECOMMENDATIONS

Our geotechnical evaluation and recommendations for seismic design, liquefaction, foundation, floor slab support, pavement design, corrosion and site design are provided below. From a geotechnical point of view, the Site is considered suitable for the proposed development following the recommendations outlined below.

6.1 Seismic Design Parameters

The following preliminary seismic design criteria are recommended for structures bearing on shallow foundations with ground improvement to mitigate the settlement hazard from liquefaction.

Criteria	Mapped (Site Class D)
MCE_R Spectral response acceleration at Short Periods, S_S	1.740g
MCE_R Spectral response acceleration at 1 second period, S_1	0.622g
Site-modified MCE_R Spectral Response Acceleration at Short Periods, S_{MS}	1.740g
Site-modified MCE_R Spectral Response Acceleration at 1 second period, S_{M1}	1.057g
Design Spectral Response Acceleration at short periods, S_{DS}	1.160g
Design Spectral Response Acceleration at 1 second period, S_{D1}	0.705g
MCE_G Peak Ground Acceleration, PGA_M	0.826g

Notes:

1. Recommended mapped values are based on F_a and F_v of 1.0 and 1.7, respectively.

The recommend mapped values above assume Exception No. 2 of Section 11.4.8 of ASCE 7-16 will be used for seismic design, and that the structures will not be classified as a seismically isolated structure or structure with damping systems.

The structural engineer should confirm the structural fundamental period of vibration and the seismic design approach (i.e. if the exceptions in Section 11.4.8 of ASCE 7-16 will be used). If the structural engineer elects not to use the exceptions of Section 11.4.8 of ASCE 7-16 or the structure will be designed as a seismically isolated structure or structure with damping systems, then a site-specific ground motion hazard analysis in accordance with Section 21.2 of ASCE 7-16 will be required for developing the seismic design criteria.

6.2 Liquefaction and Cyclic Densification

A liquefaction evaluation was performed for boring LB-3 using the historical high groundwater depth of 30 feet. For the analysis, an acceleration of 0.83g and magnitude earthquake of 6.9 was used based on a hazard level of 2 percent probability of exceedance in 50 years. Blow counts collected with a California Modified Sampler were factored with a value of 0.65 to calculate equivalent SPT N- Values. Based on the analysis, the factor of safety against liquefaction for the design earthquake is greater than 2, so liquefaction is not anticipated. Dry dynamic settlement of less than 1 inch is anticipated under the design earthquake event.

6.3 Expansive Soil

Potentially expansive soils are defined by the CBC 2019 as soils with expansion indices (EI) of greater than 20. Expansive index testing of the upper 5 feet of soil indicates that the soil has a "medium" expansion potential (EI of 49 at LB-3 and EI of 84 at LB-6). The soils with the expansion potential soils were the clayey soils within the undocumented fill. If these soils are to be used as backfill within the upper 5 feet of the site, we recommended mixing the soils with less expansive soils to reduce potential for heaving and settlement of pavement and other flatwork on site.

Expansive soils swell or shrink when the moisture content of the soil changes. A soil's moisture content can change through cyclic wet/dry weather cycles, variations in the groundwater level, installation of irrigation systems, change in landscape plantings, and changes in site grading. Leaking utilities can also drastically change soil moisture content.

6.4 Building Foundations

Based on the borings drilled to date, the soil underlying the proposed building consist of artificial fills and alluvial deposits. In general, the artificial fill in the upper 4 to 5 feet of the site is not suitable for support of the proposed structures and should be over-excavated and replaced with controlled, compacted fill If miscellaneous fill soils are encountered deeper, the fills should be remove to native alluvium. Removals should extend laterally beyond the structures to a distance equal to the depths of removal but should generally extend not less than 5 feet beyond the outside edges of foundations. Over-excavated material can be used as engineered fill in accordance with Section 7.2

6.4.1 Spread Footings or Continuous Footings

The proposed warehouse should be supported on new shallow foundations bearing on compacted fill or native subgrade if the subgrade is undisturbed. Footings can be designed with an allowable bearing of 4,000 psf, should have a minimum embedment depth of 24 inches and minimum width of 12 inches. Recommended allowable bearing values include both dead and live loads, and may be increased by one-third for transient loads, such as wind and seismic forces. Static footing settlement of less than 1 inch is anticipated and differential settlement of less than 1/2 inch over 100 feet is estimated with foundations bearing on compacted fill or native soils. Seismic settlement of less than 0.5 inch is estimated under the design earthquake loading.

The foundation subgrade should be free of standing water and deleterious debris, firm and unyielding, and observed and approved by LANGAN prior to steel or concrete placement. The contractor shall be responsible for maintaining the subgrade in its as approved condition (i.e. free of water, debris, etc.) until the foundation is constructed.

Lateral Resistance: An allowable coefficient of friction of 0.28 may be used for lateral sliding resistance for concrete foundations on approved compacted fill. The allowable coefficient of friction includes a factor of safety of 2. If the sliding resistance calculated using the above coefficient of friction is deemed insufficient, shear keys can be provided in the bearing material to provide supplemental sliding resistance. Should additional lateral resistance be required, we should be notified so we can perform additional analyses and develop supplemental recommendations to resist the intended loads.

6.5 Floor Slab

LANGAN anticipates the proposed floor slab can be designed as a slab-on-grade bearing on a minimum of 3 feet of compacted fill. The slab subgrade should be compacted, any loose or soft areas should be removed.

It is anticipated that the building will have a sock high slab that reported on compacted fill. Low expansive soils is recommend for slab subgrade. Based on our laboratory test results the near-surface soils within the site are generally anticipated to possess a **medium** expansion potential, therefore, native soils should be mixed with low expansion soil or cemented before used as

LANGAN recommends that slabs be designed using the following recommendations:

- Subgrade modulus, k, equal to 120 pounds per cubic inch (pci);
- 4-inch minimum thickness;
- For moisture sensitive floors, a 15-mil vapor barrier and 4 inches of sand or gravel can be used as a moisture barrier. The 15-mil vapor barrier should have joints lapped not less than 6 inches.
- Steel reinforcing should be designed by the project's Structural Engineer presuming medium expansive soil potential and sufficient to meet shrinkage reinforcement limits.

6.6 Flatwork

Flatwork can be supported on 12 inches of compacted fill. The upper 12 inches of subgrade material should be over-excavated and re-compacted. The excavation bottom be should be scarified, allowed to dry and compacted. Over excavated material can be used as engineered fill in accordance with recommendations later in this report. Based on our laboratory test results the near-surface soils within the site are generally anticipated to possess a **medium** expansion potential.

Sidewalks should be designed by the sidewalk designer based on anticipated loading however the following is recommended at a minimum. Exterior flatwork should be a minimum 4 inches thick. Cold joints or saw cuts should be provided at least every 5 feet in each direction. Flatwork more than 5 feet in width across the minimum dimension should be reinforced with 6" by 6", W4 by W4 welded wire mesh or No 3 bars spaced 18 inches center to center in both directions. Cold joints should be keyed or provided with dowels spaced 18 inches on center. Flatwork that meets the structure at points of entry should be doweled into the footing or grade beam of the structure. Consideration should also be given to doweling flatwork into curbs where they meet. Special jointing detail should be provided in areas of block-outs, notches, or other irregularities to avoid cracking at points of high stress.

6.7 Corrosion Considerations

Chemical analyses of the upper 5 feet in LB-3 are summarized below.

Table 2 – Soil Corrosion Test Results

Sample	Depth (feet)	Resistivity (ohm-cm)	pH	Soluble Sulfate (%)	Chloride (%)
LB-3/B-1	0-5	1,600	7.4	0.0156	0.0027

Based on the minimum resistivity, pH, sulfate and chloride contents, the upper approximately 5 feet of soil at this Site is considered moderately corrosive to ferrous metals (Romanoff, 1957). A corrosion expert should be consulted during the design phase for the most economical and effective corrosion protection if ferrous site utilities are required. Based on the soluble sulfate percent, concrete can be designed as exposure class S1 for sulfate exposure. A Type II cement mix with a maximum water-cement ratio of 0.50 and a minimum specified compressive strength (f'c) of 4,000 psi may be used for foundation concrete caps, beams, and slabs (ASTM C150). A copy of the corrosion results is provided in Appendix D.

6.8 Pavement Recommendations

The appropriate pavement section depends on the type and strength of subgrade soil, traffic load, and planned pavement life. The existing fill has areas of high plasticity clay with an R-Value of 2 based on laboratory results. Other soils on site have lower plasticity clay or more sand. We recommend that during overexcavation and recompaction of the soils at the site that higher clayey soils be segregated for use deeper than 3 feet below paving or be mixed with nonplastic soils to improve the soils. Higher R-Value 15 or more, is anticipated if the soils are mixed.

Since traffic loading was not provided we assumed average Traffic Indices (TI) based on similar projects. The design TI should be confirmed by the Civil Engineer or the Traffic Engineer based on the anticipated vehicle types and trips or based on the proposed tenant requirements.

Preliminary flexible pavement sections for auto parking areas and truck parking, and rigid pavement section compacted have been developed with the parameters summarized in the following tables. Table 3 provides recommendation pavement thickness based on both the lower R-value (2) and a higher R-value (15).

Table 3A - Pavement Recommendations (R-Value <10)

Pavement Area	Traffic Index	Section Thickness	
		Asphalt Concrete (inches)	Aggregate Base (inches)
Auto Parking Areas	5.0	3	11
Auto Parking Areas	6.0	5	10
Truck Paving	7.0	5	14

Table 3B - Pavement Recommendations (R-Value = 15)

Pavement Area	Traffic Index	Section Thickness	
		Asphalt Concrete (inches)	Aggregate Base (inches)
Auto Parking Areas	5.0	3	10
Auto Parking Areas	6.0	4	11
Truck Paving	7.0	4	14

The subgrade should be air dried between 0 to 3 percent above optimum moisture content, and compacted to a minimum of 95 percent of the laboratory maximum dry density, as determined by ASTM D1557 (Modified Proctor). Alternatively, the subgrade can be treated with cement to reduce the moisture content. Aggregate base should be moisture conditioned between 0 to 3 percent above of optimum moisture content and compacted to a minimum of 95 percent of the laboratory maximum dry density, as determined by ASTM D1557 (Modified Proctor).

6.9 Utilities

Utilities can be supported on compacted fill or approved native soils. Bedding material should extend at least 12 inches over the top of the utility unless otherwise required by the utility owner. Where necessary, trench excavations should be shored and braced, in accordance with all safety regulations, to prevent cave-ins. Utility subgrade should be confirmed to be free of standing water, firm, and unyielding prior to placement of bedding material. Utility trenches above pipe bedding should be backfilled in accordance with the recommendations provided herein with either previously excavated soil (if suitable), or with approved imported material.

Fill outside of building footprints or within 2 feet of pavement should be placed in loose lifts no greater than 8 inches in thickness and should be moisture conditioned between 0 to 3 percent above optimum moisture content and compacted to at least 90 percent of the laboratory maximum dry density as determined by ASTM D1557 (Modified Proctor).

6.10 Site Drainage

Proper drainage should be maintained at all times. Ponding or trapping of water in localized areas can cause differing moisture levels in the subsurface soil. Drainage should be directed away from the tops of excavations. Erosion protection and drainage control measures should be implemented during periods of inclement weather. During rainfall events, backfill operations may need to be restricted to allow for proper moisture control during fill placement.

7. CONSTRUCTION CONSIDERATIONS

7.1 Site Preparation

Prior to the commencement of excavation and grading, a meeting should be held at the Site with the Owner, excavation/grading Contractor, Civil Engineer and Geotechnical Engineer to discuss the work schedule and geotechnical aspects of the grading. All vegetation and deleterious materials should be disposed of off-site before beginning grading operations.

Building foundations and utilities from the existing structures should be completely removed during demolition and grading. If utility pipes are too deep to be removed economically, they should be filled with cement, sand grout or equivalent material that will prevent future collapse of the pipe.

Temporary excavations should be performed in accordance with Cal/OSHA. Excavations should not be left open for prolonged periods. If excavations are limited by existing improvements or property lines, special grading techniques, such as slot cuttings or other acceptable design criteria may be required. Under such conditions, specific recommendations should be provided by the geotechnical consultant during review of final grading plan.

7.2 Engineered Fill and Compaction Criteria

Imported fill should be non-corrosive to concrete and ferrous metals, contain no more than 15 percent passing the no. 200 sieve by dry weight and have a plasticity index less than 7. Grain size distributions, Atterberg limits, maximum dry density, and optimum water content (ASTM D1557) determinations should be made on representative samples of the proposed fill material before being brought to the Site.

Engineered fill should be placed in loose lifts no greater than 8 inches in thickness, moisture conditioned between 0 to 3 percent above of optimum moisture content, and compacted to at least 95 percent of the laboratory maximum dry density as determined by ASTM D1557 (Modified Proctor). In landscape areas or in areas greater than 2 feet below paving, cohesive soils can be compacted to at least 90 percent of laboratory maximum dry density as determined by ASTM D1557.

All engineered fill placement should be subject to controlled engineering observation by the Geotechnical Engineer or their representative. No fill material should be placed on areas where free water is standing or on surfaces that the geotechnical consultant has not approved.

8. SECTION 111 STATEMENT

Provided that the recommendations in this report are implemented, it is LANGAN's opinion that the proposed project will be safe from the hazards of landslide, settlement, or slippage and that the proposed project will not adversely affect the stability of adjacent properties.

9. SERVICES DURING DESIGN, CONSTRUCTION DOCUMENTS AND CONSTRUCTION QUALITY ASSURANCE

During final design we should be retained to consult with the design team as geotechnical questions arise. Technical specifications and design drawings should incorporate LANGAN's recommendations. When authorized, LANGAN will assist the design team in preparing specification sections related to geotechnical issues such as earthwork, shallow foundations, backfill and excavation support. LANGAN should also, when authorized, review the project plans, as well as Contractor submittals relating to materials and construction procedures for geotechnical work, to confirm the designs incorporate the intent of our recommendations.

LANGAN has investigated and interpreted the Site subsurface conditions and developed the foundation design recommendations contained herein, and is therefore best suited to perform quality assurance observation and testing of geotechnical-related work during construction. The work requiring quality assurance confirmation and/or special inspections per the Building Code includes, but is not limited to, earthwork, backfill, shallow foundations, and excavation support.

Recognizing that construction observation is the final stage of geotechnical design, quality assurance observation during construction by LANGAN is necessary to confirm the design assumptions and design elements, to maintain our continuity of responsibility on this project, and allow us to make changes to our recommendations, as necessary. The foundation system and general geotechnical construction methods recommended herein are predicated upon LANGAN assisting with the final design and providing construction observation services for the Owner. Should LANGAN not be retained for these services, we cannot assume the role of geotechnical engineer of record, and the entity providing the final design and construction observation services must serve as the engineer of record.

10. OWNER AND CONTRACTOR RESPONSIBILITIES

The Contractor is responsible for construction quality control, which includes satisfactorily constructing the foundation system and any associated temporary works to achieve the design intent while not adversely impacting or causing loss of support to neighboring property, structures, utilities, roadways, etc. Construction activities that can alter the existing ground conditions such as excavation, fill placement, foundation construction, ground improvement, pile driving/drilling, dewatering, etc. can also induce stresses, vibrations, and movements in nearby structures and utilities, and disturb occupants. Contractors are solely responsible to ensure that their activities will not adversely affect the structures and utilities, and will not disturb occupants. Contractors must also take all necessary measures to protect the existing structures, utilities, etc. during construction. By using this report, the Owner agrees that LANGAN will not be held responsible for any damage to adjacent structures, utilities, etc.

11. LIMITATIONS

The conclusions and recommendations provided in this report result from our interpretation of the geotechnical conditions existing at the site inferred from a limited number of borings as well as architectural information. Actual subsurface conditions may vary. Recommendations provided are dependent upon one another and no recommendation should be followed independent of the others.

Any proposed changes in structures or their locations should be brought to LANGAN's attention as soon as possible so that we can determine whether such changes affect our recommendations. Information on subsurface strata and groundwater levels shown on the logs represent conditions encountered only at the locations indicated and at the time of investigation. If different conditions are encountered during construction, they should immediately be brought to LANGAN's attention for evaluation, as they may affect our recommendations.

This report has been prepared to assist the Owner, architect, and structural engineer in the design process and is only applicable to the design of the specific project identified. The information in this report cannot be utilized or depended on by engineers or contractors who are involved in evaluations or designs of facilities (including underpinning, grouting, stabilization, etc.) on adjacent properties which are beyond the limits of that which is the specific subject of this report. Environmental issues (such as permitting or potentially contaminated soil and groundwater) are outside the scope of this study and should be addressed in a separate evaluation.

12. REFERENCES

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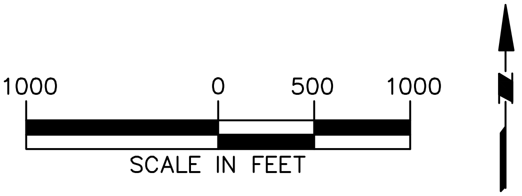
FIGURES

LEGEND:

– – – – – – APPROXIMATE SITE LIMITS

NOTES:

1. BACKGROUND IMAGE REFERENCED FROM MICROSOFT BING MAPS ON 1 JUNE 2022.



LANGAN 18575 Jamboree Road, Suite 150, Irvine, CA 92612 T: 949.561.9200 F: 949.561.9201 www.langan.com NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO VIRGINIA WEST VIRGINIA WASHINGTON DC FLORIDA TEXAS ARIZONA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA Langan Engineering & Environmental Services, Inc.	Project **16008 AMAR ROAD** CITY OF INDUSTRY LOS ANGELES COUNTY CALIFORNIA	Drawing Title **SITE VICINITY MAP**	Project No. 700117701 Date JUNE 2022 Scale AS SHOWN Drawn By RF	Drawing No. **1**

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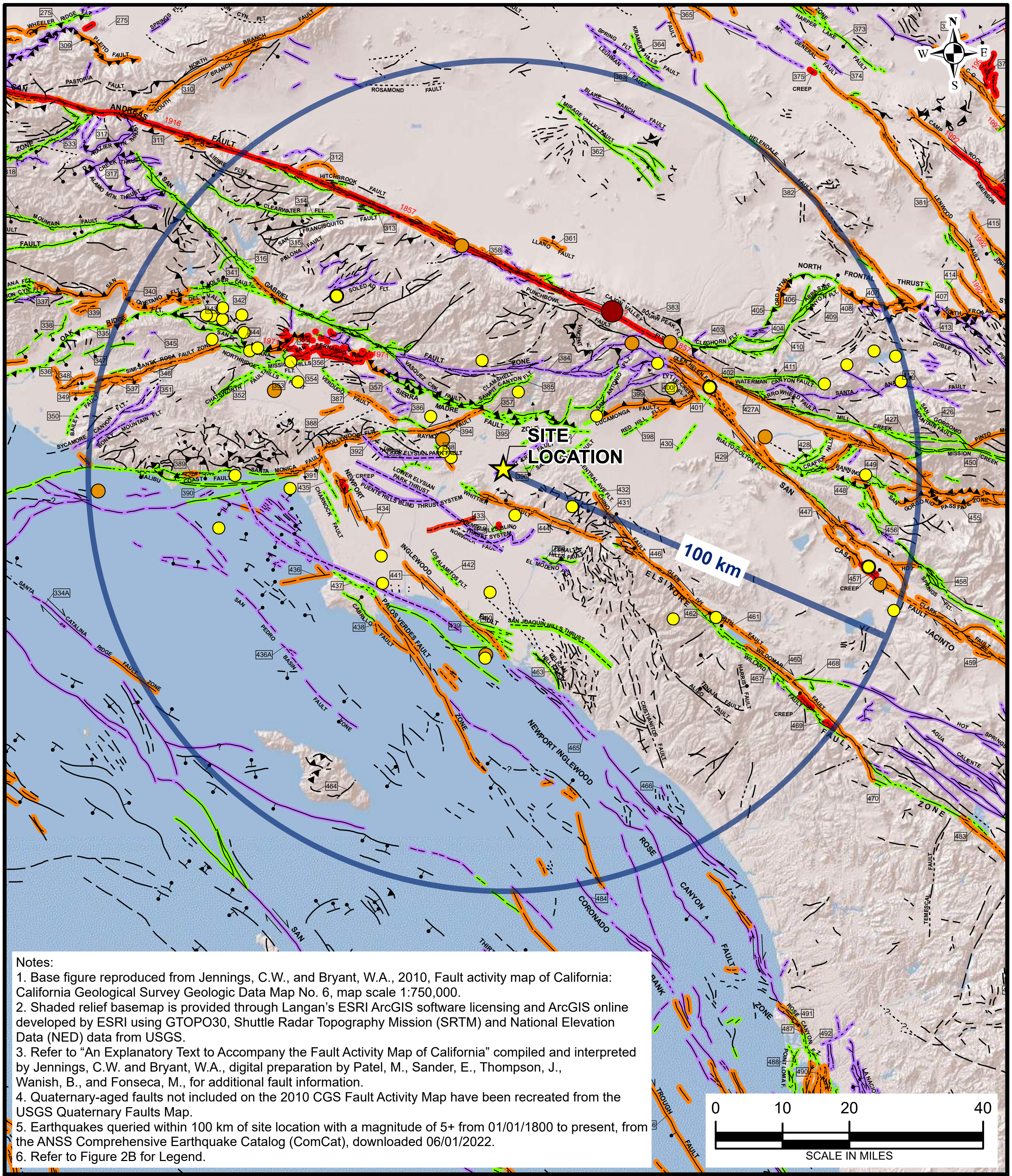
Filename: \\langan.com\data\IRV\data7\700117701\Project Data_Discipline\Geotechnical\CAD\Geotech figures.dwg Date: 6/7/2022 Time: 09:47 User: jxu Style Table: Langan.stb Layout: SVM



Notes:
1. Base figure reproduced from Jennings, C.W., and Bryant, W.A., 2010, Fault activity map of California: California Geological Survey Geologic Data Map No. 6, map scale 1:750,000.
2. Shaded relief basemap is provided through Langan's ESRI ArcGIS software licensing and ArcGIS online developed by ESRI using GTOPO30, Shuttle Radar Topography Mission (SRTM) and National Elevation Data (NED) data from USGS.
3. Refer to "An Explanatory Text to Accompany the Fault Activity Map of California" compiled and interpreted by Jennings, C.W. and Bryant, W.A., digital preparation by Patel, M., Sander, E., Thompson, J., Wanish, B., and Fonseca, M., for additional fault information.
4. Quaternary-aged faults not included on the 2010 CGS Fault Activity Map have been recreated from the USGS Quaternary Faults Map.
5. Earthquakes queried within 100 km of site location with a magnitude of 5+ from 01/01/1800 to present, from the ANSS Comprehensive Earthquake Catalog (ComCat), downloaded 06/01/2022.
6. Refer to Figure 2B for Legend.

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Project

16008 AMAR ROAD

CITY OF INDUSTRY

LOS ANGELES COUNTY CALIFORNIA

Figure Title

QUATERNARY FAULT ACTIVITY AND EARTHQUAKE EPICENTER MAP

Project No.
700117701

Date
JUNE 2022

Scale
1 inch = 20 miles

Drawn By
TO

Figure
2A

Path: \\langan.com\data\IRV\data7\700117701\Project Data\ArcGIS\APRX\16008 Amar Road - 700117701.aprx Date: 6/1/2022 User: Toulie Time: 4:40 PM

LEGEND:

☆ Site Location

Fault Age

🟥 Historic

🟧 Holocene

🟩 Late Quaternary

🟪 Early Quaternary

⬛ Pre-Quaternary Fault

☐ 100 km Search Radius

Earthquake Epicenter

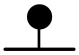
● Magnitude 5.0 to 5.9

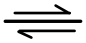
● Magnitude 6.0 to 6.9

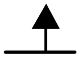
● Magnitude 7.0 to 7.4

● Magnitude 7.5 to 8.0

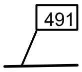
Fault Symbols


Bar and ball on downthrown side (relative or apparent).


Relative or apparent direction of lateral movement.


Direction of dip.


Low angle fault (barbs on upper plate). Fault surface generally dips less than 45° but locally may have been subsequently steepened.



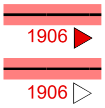
Numbers refer to annotations listed in the appendices of the accompanying report.


Structural discontinuity (offshore) separating differing Neogene structural domains.

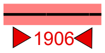

Brawley Seismic Zone.

Fault Classification

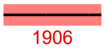

Fault along which historic (last 200 years) displacement has occurred and is associated with one or more of the following:
(a) a recorded earthquake with surface rupture. (Also included are some well-defined surface breaks caused by ground shaking during earthquakes, e.g. extensive ground breakage, not on the White Wolf fault, caused by the Arvin-Tehachapi earthquake of 1952). The date of the associated earthquake is indicated. Where repeated surface ruptures on the same fault have occurred, only the date of the latest movement may be indicated, especially if earlier reports are not well documented as to location of ground breaks.
(b) fault creep slippage - slow ground displacement usually without accompanying earthquakes.
(c) displaced survey lines.



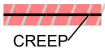
A triangle to the right or left of the date indicates termination point of observed surface displacement. Solid red triangle indicates known location of rupture termination point. Open black triangle indicates uncertain or estimated location of rupture termination point.



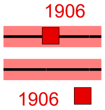
Date bracketed by triangles indicates local fault break.



No triangle by date indicates an intermediate point along fault break.



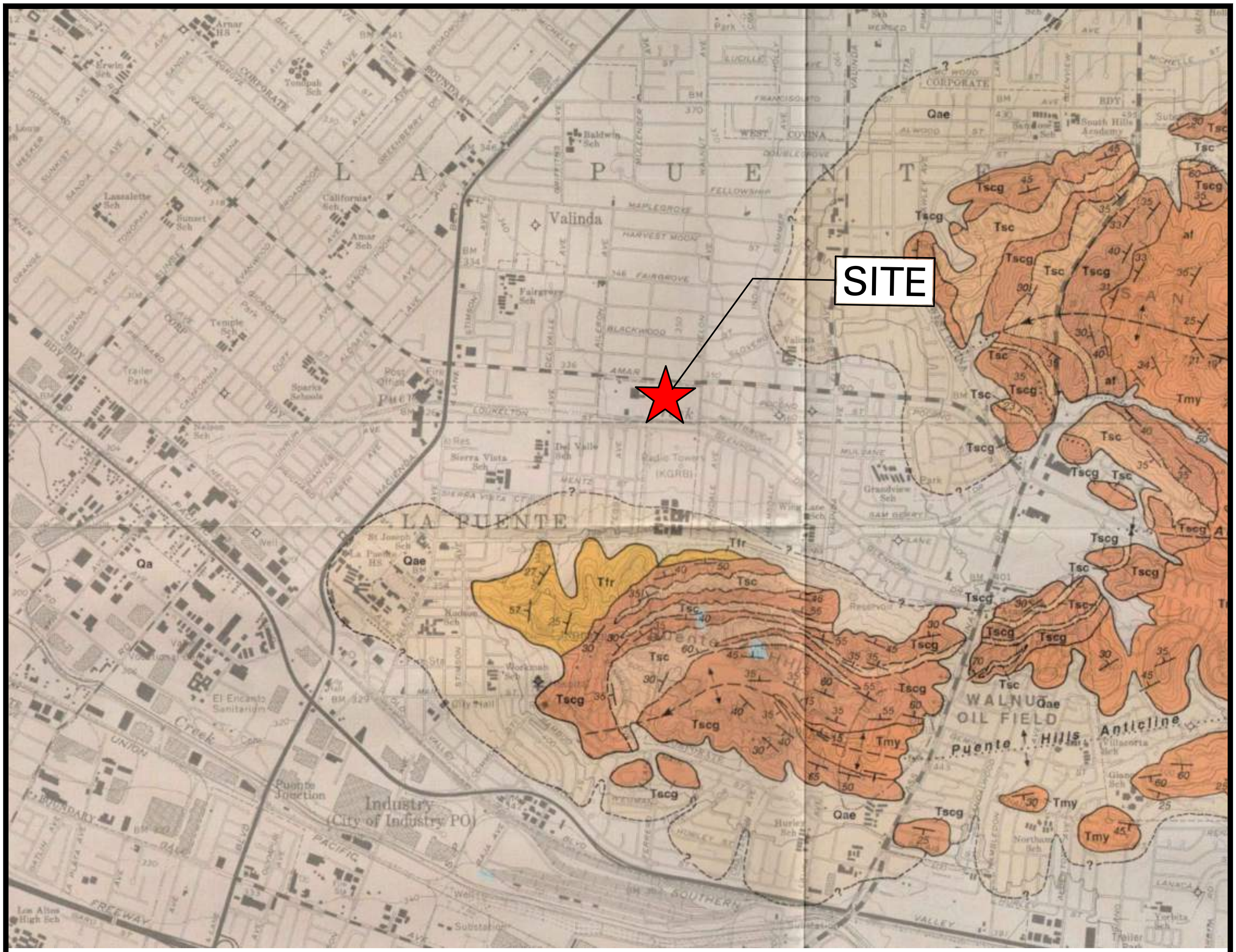
Fault that exhibits fault creep slippage. Hachures indicate linear extent of fault creep. Annotation (creep with leader) indicates representative locations where fault creep has been observed and recorded.



Square on fault indicates where fault creep slippage has occurred that has been triggered by an earthquake on some other fault. Date of causative earthquake indicated. Squares to right and left of date indicate terminal points between which triggered creep slippage has occurred (creep either continuous or intermittent between these end points).

LANGAN Langan Engineering and Environmental Services, Inc. 18575 Jamboree Road, Suite 150 Irvine, CA 92612 T: 949.561.9200 F: 949.561.9201 www.langan.com	Project 16008 AMAR ROAD CITY OF INDUSTRY LOS ANGELES COUNTY CALIFORNIA	Figure Title QUATERNARY FAULT ACTIVITY AND EARTHQUAKE EPICENTER MAP	Project No. 721034501 Date JUNE 2022 Scale NOT TO SCALE Drawn By TO	Figure 2B

Path: \\langan.com\data\IRV\data7\700117701\Project Data\ArcGIS\APRX\16008 Amar Road - 700117701.aprx Date: 6/1/2022 User: Toulie Time: 4:16 PM



LEGEND:

Qg	Qg	GRAVEL AND SAND
Qa	Qa	ALLUVIAL GRAVEL, SAND AND SILT
	Qof	ALLUVIAL FAN SEDIMENTS
Qof	Qae	ALLUVIAL GRAVEL AND SAND
Qoa	Qoa	REMNANTS OF ALLUVIAL SAND AND GRAVEL
Qog	Qog	REMNANTS OF ALLUVIAL GRAVEL

Tfsc	Tfsc	NONMARINE SANDSTONE AND CONGLOMERATE
Tfps	Tfps	SILTY SANDSTONE FACIES
Tfp	Tfp	"PICO" CLAYSTONE
Tfs	Tfs	SANDSTONE FACIES OF FERNANDO FORMATION
Tfr	Tfr	"REPETTO" CLAYSTONE MEMBER
Tsc	Tsc	GRAY SILTY CLAY SHALE
Tscg	Tscg	CONGLOMERATE AND SANDSTONE

3000 1500 0 3000

SCALE IN FEET

NOTES:

1. REFERENCE: GEOLOGIC MAP OF THE EL MONTE AND BALDWIN PARK QUADRANGLES, BY THOMAS W. DIBBLEE, JR., 1999.

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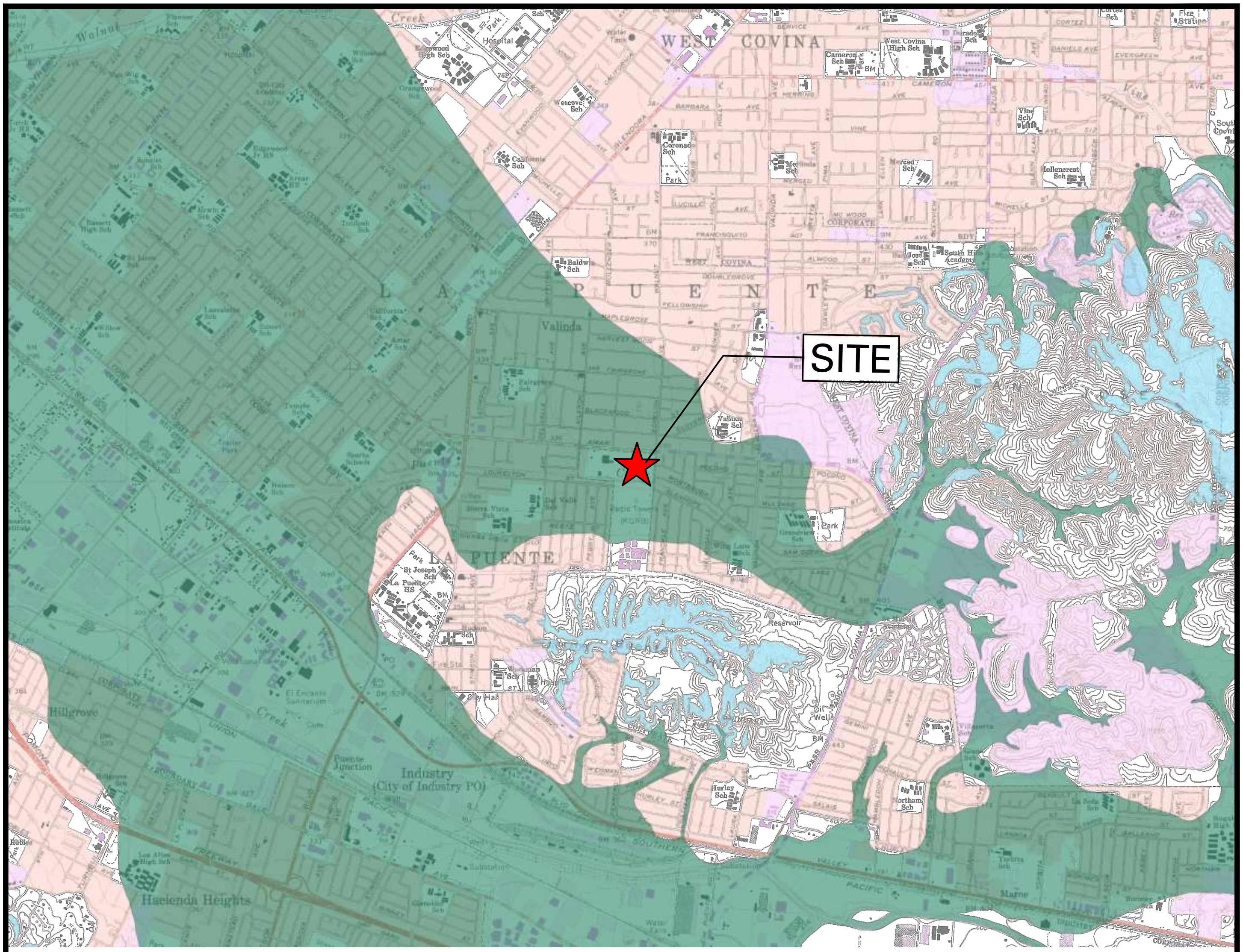
DUBAI ISTANBUL PANAMA

Langan Engineering & Environmental Services, Inc.

Project	Drawing Title	Project No.	Drawing No.
16008 AMAR ROAD CITY OF INDUSTRY LOS ANGELES COUNTY CALIFORNIA	GEOLOGIC MAP	700117701	3
		Date: JUNE 2022	
		Scale: AS SHOWN	
		Drawn By: RF	



LEGEND:

🟩 **Liquefaction Zones**
Areas where historical occurrence of liquefaction, or local geological, geotechnical and ground water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

🟦 **Earthquake-Induced Landslide Zones**
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

N

NOTES:

1. EARTHQUAKE ZONES OF REQUIRED INVESTIGATION MAP REFERENCED FROM CALIFORNIA GEOLOGICAL SURVEY, EARTHQUAKE ZONES OF REQUIRED INVESTIGATION BALDWIN PARK QUADRANGLE, RELEASED 15 MARCH, 1999.

4000 0 4000

SCALE IN FEET

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Drawing Title

EARTHQUAKE ZONES OF REQUIRED INVESTIGATION

Project No.
700117701

Date
JUNE 2022

Scale
AS SHOWN

Drawn By
RF

Drawing No.
4

Filename: \\langan.com\data\IRV\data7\700117701\Project Data_Discipline\Geotechnical\CAD\Geotech figures.dwg Date: 6/7/2022 Time: 09:48 User: jxu Style Table: Langan.stb Layout: Liq Map

LEGEND:

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

▨ FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

▩ OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

☐ OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

▧ COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

▧ OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

———	1% annual chance floodplain boundary
———	0.2% annual chance floodplain boundary
— — —	Floodway boundary
– —— —— –	Zone D boundary
●●●●●●●●●●●●●●●●	CBRS and OPA boundary
▬ ←	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
~~ 513 ~~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

Ⓐ———Ⓐ	Cross section line
㉓- - - - - - - -㉓	Transect line
97°07'30", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
$^{42}75^{000m}$N	1000-meter Universal Transverse Mercator grid values, zone 11
6000000 FT	5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

NOTES:

1. FLOOD MAP REFERENCED FROM FLOOD INSURANCE RATE MAP #06037C1695F AND #06037C1700F DATED 26 SEPTEMBER 2008.

1000 0 1000 2000

SCALE IN FEET

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Drawing Title

FLOOD MAP

Project No.
700117701

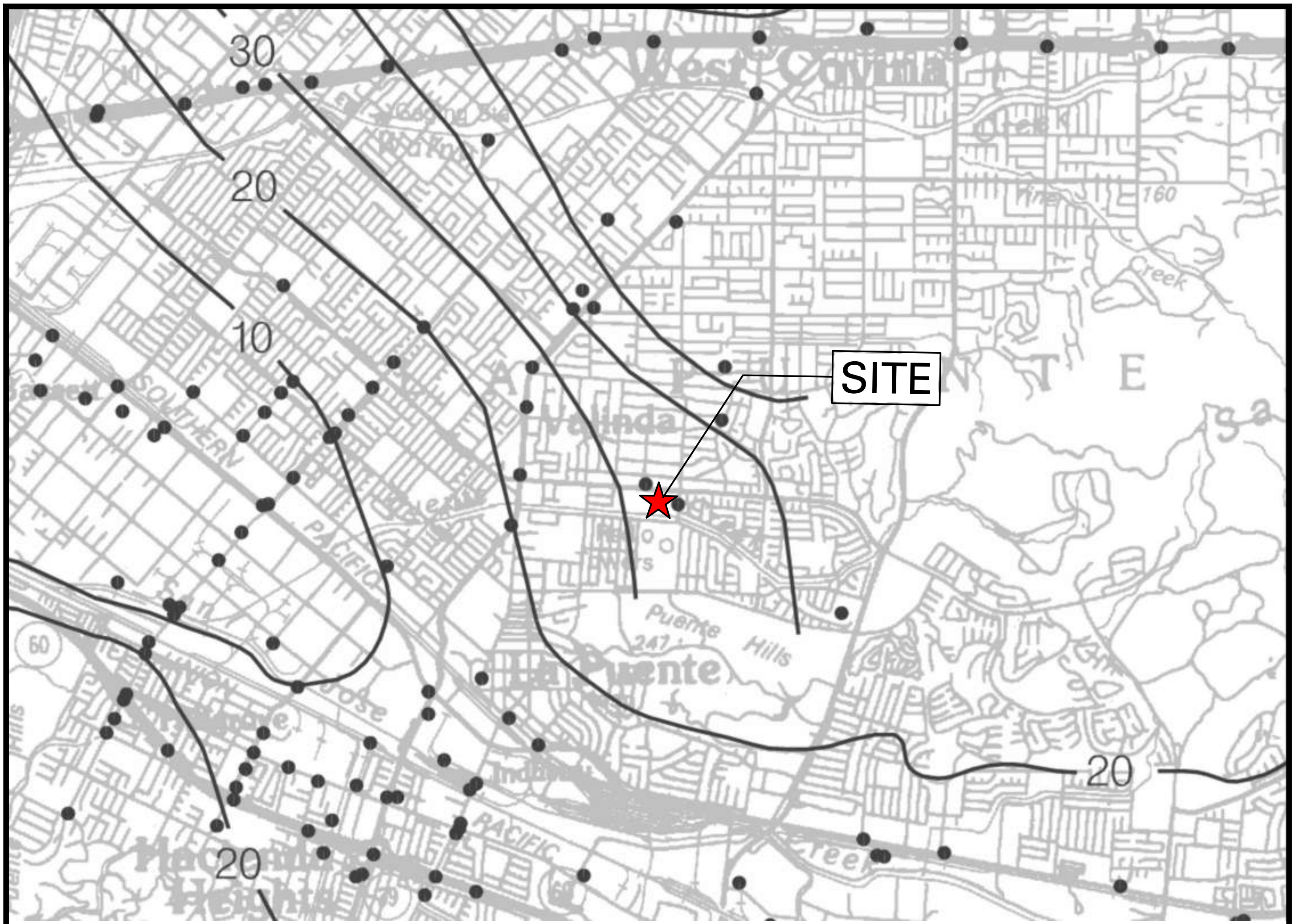
Date
JUNE 2022

Scale
AS SHOWN

Drawn By
RF

Drawing No.
5

Filename: \\langan.com\data\IRV\data7\700117701\Project Data_Discipline\Geotechnical\CAD\Geotech figures.dwg Date: 6/7/2022 Time: 09:48 User: jxu Style Table: Langan.stb Layout: Flood Map



LEGEND:

— 30 — Depth to ground water In feet

NOTES:

1. HISTORICAL HIGHEST GROUNDWATER MAP REFERENCED FROM SEISMIC HAZARD ZONE REPORT FOR THE BALDWIN PARK 7.5-MINUTE QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA, 1998

5000 0 2500 5000

SCALE IN FEET

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HISTORICAL HIGHEST GROUNDWATER MAP

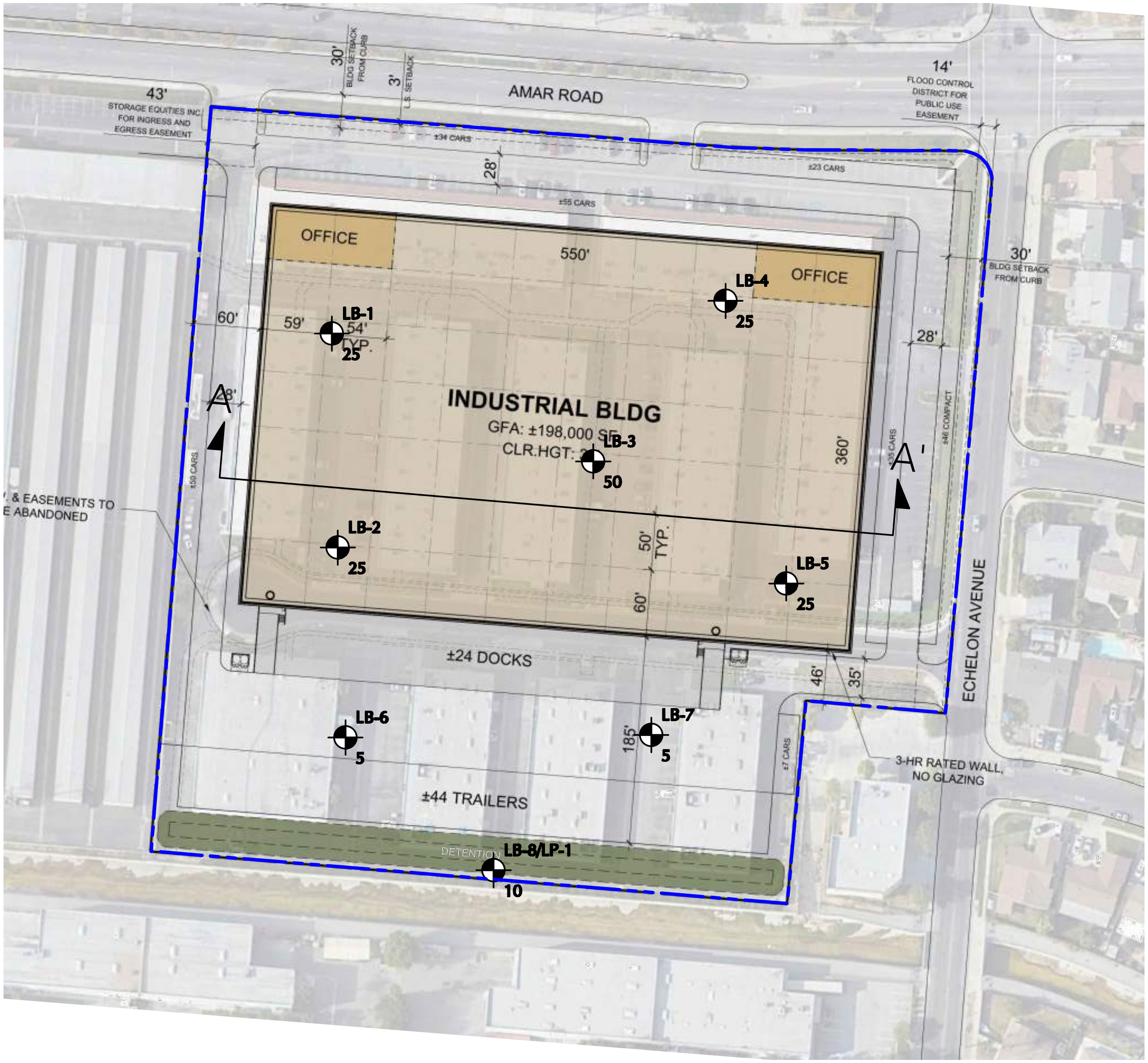
Project No.
700117701

Date
JUNE 2022

Scale
AS SHOWN

Drawn By
RF

Drawing No.
6



LEGEND:

LB1 ⊕ 25	LANGAN BORING LOCATIONS AND DEPTH IN FEET.
— - —	APPROXIMATE SITE LIMITS
A ▲ ▲ A'	CROSS SECTIONS
▨	PROPOSED INDUSTRIAL BUILDING

NOTES:

1. SITE LIMITS REFERENCED FROM CONCEPTUAL SITE PLAN BY WARE MALCOMB DATED 30 MARCH 2022.
2. BORINGS DRILLED BY ABC DRILLING ON 16 MAY 2022 UNDER FULL TIME OBSERVATION OF A LANGAN FIELD ENGINEER.
3. BORING LOCATION ARE APPROXIMATE.
4. BACKGROUND IMAGE REFERENCED FROM BING MAP ON 19 MAY, 2022.

150 0 75 150

SCALE IN FEET

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Drawing Title

BORING LOCATION MAP

Project No. 700117701

Date JUNE 2022

Drawn By AS SHOWN

Checked By JX

7

LEGEND:

——— EXISTING GROUND SURFACE LEVEL

■ ASPHALT CONCRETE

▨ CL (CLAY)

● AGGREGATE BASE

▥ SM (silty SAND)

░ SP (SAND)

▩ FILL

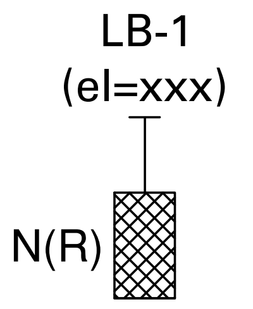
▥ ML (SILT)

▨ SC (clayey SAND)

LB-1 (el=xxx) BORING ID AND ELEVATION (NAVD88)

N SPT BLOWCOUNT: THE NUMBER OF BLOWS OF A 140 POUND AUTOMATIC HAMMER FREE FALLING FROM A HEIGHT OF 30 INCHES NEEDED TO DRIVE A 2-INCH OUTER DIAMETER SPLIT SPOON SAMPLER 12 INCHES AFTER AN INITIAL PENETRATION OF 6 INCHES, OR UNTIL REFUSAL IS ENCOUNTERED.

N(R) CALIFORNIA MODIFIED SPLIT-SPOON SAMPLER BLOWCOUNT: THE NUMBER OF BLOWS OF A 140 POUND AUTOMATIC HAMMER FREE FALLING FROM A HEIGHT 30 INCHES NEEDED TO DRIVE A 3-INCH OUTER DIAMETER CALIFORNIA MODIFIED SAMPLER 12 INCHES AFTER 6 INCHES OF INITIAL PENETRATION, OR UNTIL REFUSAL IS ENCOUNTERED.



NOTES:

1. THE FIGURE SHOWS GENERALIZED SUBSURFACE CONDITIONS AT THE RESPECTIVE BORINGS. VARIATIONS IN CONDITIONS SHOULD BE EXPECTED BETWEEN BORINGS. FOR A DETAILED DESCRIPTION OF CONDITIONS ENCOUNTERED REFER TO BORING LOGS.
2. EXISTING TOPO AND BORING ELEVATIONS REFERENCED FROM GOOGLE EARTH ON 20 MAY 2022.
3. LANGAN BORINGS LB-1 THROUGH LB-8 WERE DRILLED BY ABC DRILLING ON 16 MAY 2022, UNDER FULL-TIME ENGINEERING OBSERVATION OF A LANGAN FIELD ENGINEER.
4. SEE FIGURE 7 FOR LOCATION OF CROSS-SECTION WITH RESPECT TO SITE PLAN

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Project
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CITY OF INDUSTRT
LOS ANGELES COUNTY CALIFORNIA

Drawing Title
CROSS SECTION
A-A'

Project No.
700117701
Date
JUNE 2022
SCALE
AS SHOWN
DRAWN BY
JX

8

APPENDIX A
Summary of Reported Earthquake Events

TABLE A.1 - USGS ANSS COMPREHENSIVE CATALOG SEARCH RESULTS

Date	Latitude	Longitude	Approximate Magnitude	Magnitude Type	Approximate Distance from Site (km)
3/29/2014	33.9325	-117.9158	5.10	mw	12
7/29/2008	33.9485	-117.7663	5.44	mw	18
10/16/1999	34.2400	-117.0400	5.60	mb	85
4/26/1997	34.3690	-118.6700	5.07	ml	77
6/26/1995	34.3940	-118.6690	5.02	ml	78
3/20/1994	34.2310	-118.4750	5.24	ml	54
1/29/1994	34.3060	-118.5790	5.06	ml	66
1/19/1994	34.3780	-118.6190	5.07	ml	73
1/19/1994	34.3790	-118.7120	5.06	ml	81
1/18/1994	34.3770	-118.6980	5.24	ml	80
1/17/1994	34.3260	-118.6980	5.58	ml	77
1/17/1994	34.3400	-118.6140	5.20	ml	71
1/17/1994	34.2750	-118.4930	5.89	ml	58
1/17/1994	34.2130	-118.5370	6.70	mw	59
8/17/1992	34.1950	-116.8630	5.23	ml	100
6/28/1992	34.2550	-116.9120	5.26	ml	97
6/28/1991	34.2700	-117.9930	5.80	mw	27
2/28/1990	34.1440	-117.6970	5.51	ml	25
12/3/1988	34.1510	-118.1300	5.02	ml	22
10/4/1987	34.0740	-118.0980	5.25	ml	16
10/1/1987	34.0610	-118.0790	5.90	mw	13
1/1/1979	33.9165	-118.6872	5.21	ml	70
2/9/1971	34.4160	-118.3700	5.30	mh	58
2/9/1971	34.4160	-118.3700	5.80	mh	58
2/9/1971	34.4160	-118.3700	5.80	mh	58
2/9/1971	34.4160	-118.3700	6.60	mw	58
9/12/1970	34.2548	-117.5343	5.22	ml	44
8/29/1943	34.2680	-116.9678	5.28	ml	93
11/14/1941	33.7907	-118.2637	5.12	ml	41
5/31/1938	33.6993	-117.5112	5.23	ml	54
3/11/1933	33.8500	-118.2660	5.00	ml	37
3/11/1933	33.6238	-118.0012	5.29	mh	46
3/11/1933	33.7667	-117.9850	5.02	mh	30
3/11/1933	33.6308	-117.9995	6.40	mw	45
8/31/1930	34.0300	-118.6430	5.25	ms	65
1/16/1930	34.2000	-116.9000	5.10	uk	97
1/16/1930	34.2000	-116.9000	5.25	ms	97
8/4/1927	34.0000	-118.5000	5.30	uk	52
7/23/1923	34.0890	-117.2590	6.21	mw	63
6/6/1918	33.8000	-117.0000	5.00	ml	90
4/21/1918	33.7620	-116.9720	6.70	mw	94
5/15/1910	33.7000	-117.4000	5.30	mw	62
5/13/1910	33.7000	-117.4000	5.00	ml	62
4/11/1910	33.7000	-117.4000	5.00	ml	62
9/20/1907	34.2000	-117.1000	5.30	mw	79

Notes:

1. The listed Earthquake Catalog Search results obtained from USGS ANSS Comprehensive Catalog on 19 May 2022.
2. Earthquake Catalog search results include earthquake events within 100 km of the Site with magnitudes of 5.0 or greater since 1900.

APPENDIX B
Boring Logs

LANGAN

Log of Boring **LB-1** Sheet 1 of 1

Project	Industrial Development Site	Project No.	700117701
Location	16008 Amar Rd, City of Industry, CA	Elevation and Datum	Approx, 333 ft (Referenced from Google Earth)
Drilling Company	ABC Liovin Drilling	Date Started / Date Finished	05/17/2022 / 05/17/2022
Drilling Equipment	CME-75 Truck Mounted Drill	Completion Depth / Rock Depth	26.5 ft / -
Size and Type of Bit	8-in O.D. Hollow Stem Auger	Number of Samples	Disturbed 5 Undisturbed - Core -
Casing Diameter (in)	- Casing Depth (ft) -	Water Level (ft.)	First ▽ - Completion ▼ - 24 HR. ▼ -
Casing Hammer	- Weight (lbs) - Drop (in) -	Drilling Foreman	Raul
Sampler	2-in O.D. split spoon; 3-in O.D. Cal Mod.		
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Field Engineer	Alexander Corob

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	333.0		0						Started Drilling at 5/17/2022 7:12 AM
●	332.7	3.5-inch Asphalt.							
▩	332.3	5-inch Aggregate Base.							
▩		Brown, clayey fine to medium SAND, trace silt, (SC), moist.							
▩	329.0	Dark brown, sandy CLAY, (CL), moist.	4						
▨		Very stiff, dark brown, sandy CLAY, trace silt, (CL), moist.	6	S-1	CR	18	4 10 14	24	
▨	320.5	Very stiff, dark brown sandy CLAY, trace silt, (CL), moist.	10	S-2	SS	18	5 12 15	27	
▧		Very dense, brown, clayey fine to medium SAND, trace silt, trace fine gravel, (SC), moist.	16	S-3	CR	18	6 24 40	64	
▧	312.0	Medium dense, light brown, clayey fine SAND, trace silt, (SC), moist.	20	S-4A	SS	18	4 7 8	15	
⁙		Medium dense, light brown, silty fine SAND, trace clay, (SM), moist.		S-4B					
⁙	307.3	Very dense, light brown, silty fine SAND, (SM), dry.	26	S-5A	CR	18	6 26 37	63	
⁘	306.5	Very dense, light brown, fine to medium SAND, trace silt, (SP), dry.		S-5B					
		End of Boring at 26.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.	28						Bottom of boring at 5/17/2022 8:29 AM
			30						

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Log of Boring **LB-2** Sheet 1 of 1

Project: Industrial Development Site		Project No.: 700117701	
Location: 16008 Amar Rd, City of Industry, CA		Elevation and Datum: Approx, 332 ft (Referenced from Google Earth)	
Drilling Company: ABC Liovin Drilling		Date Started: 05/17/2022	Date Finished: 05/17/2022
Drilling Equipment: CME-75 Truck Mounted Drill		Completion Depth: 26.5 ft	Rock Depth: -
Size and Type of Bit: 8-in O.D. Hollow Stem Auger		Number of Samples: Disturbed 5; Undisturbed -; Core -	
Casing Diameter (in): -	Casing Depth (ft): -	Water Level (ft.): First ▽ -; Completion ▼ -; 24 HR. ▼ -	
Casing Hammer: -	Weight (lbs): -; Drop (in): -	Drilling Foreman: Raul	
Sampler: 2-in O.D. split spoon; 3-in O.D. Cal Mod.		Field Engineer: Alexander Corob	
Sampler Hammer: Automatic	Weight (lbs): 140; Drop (in): 30		

Elev. (ft)	Sample Description	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+332.0							Started Drilling at 5/17/2022 8:35 AM
+331.7	4-inch Asphalt.						
+331.2	6-inch Aggregate Base.						
+328.0	Stiff, dark brown, CLAY, trace silt, trace fine sand, (CL), moist.	S-1	SS	18	3 6 7	13	
+324.5	Very stiff, brown, sandy SILT, some clay, (ML), moist.	S-2	CR	18	4 12 16	28	
	Very stiff, brown, sandy SILT, trace clay, (ML), moist.	S-3	SS	18	5 8 10	18	
+314.5	Very dense, orangish brown, silty fine to medium SAND, (SM), moist.	S-4	CR	18	10 20 44	64	
+309.5	Dense, orangish brown, fine to medium SAND, trace silt, (SP), dry.	S-5	SS	18	9 13 19	32	
+305.5	End of Boring at 26.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.						Bottom of boring at 5/17/2022 9:50 AM

Log of Boring **LB-3** Sheet 1 of 2

Project Industrial Development Site		Project No. 700117701	
Location 16008 Amar Rd, City of Industry, CA		Elevation and Datum Approx, 333 ft (Referenced from Google Earth)	
Drilling Company ABC Liovin Drilling		Date Started 05/16/2022	Date Finished 05/16/2022
Drilling Equipment CME-75 Truck Mounted Drill		Completion Depth 51.5 ft	Rock Depth -
Size and Type of Bit 8-in O.D. Hollow Stem Auger		Number of Samples: Disturbed 11	Undisturbed - / Core -
Casing Diameter (in) -	Casing Depth (ft) -	Water Level (ft.): First ▽ -	Completion ▼ - / 24 HR. ▼ -
Casing Hammer -	Weight (lbs) - / Drop (in) -	Drilling Foreman Raul	
Sampler 2-in O.D. split spoon; 3-in O.D. Cal Mod.		Field Engineer Alexander Corob	
Sampler Hammer Automatic	Weight (lbs) 140 / Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+333.0		0						Started Drilling at 5/16/2022 8:33 AM
+332.6	5-inch Asphalt.							
+332.3	4-inch Aggregate Base.							
	Dark brown, silty CLAY, trace fine sand, (CL), moist.	2	B-1	BAG				
+329.0	Very stiff, brown, sandy CLAY, trace silt, (CL), moist.	4 6	S-1	CR	18	5 11 14	25	
+325.5	Medium dense, brown, clayey fine to medium SAND, some silt, (SC), moist.	8 10 12	S-2	SS	18	6 8 12	20	
+320.5	Dense, brown, silty fine to medium SAND, (SM), moist.	14 16 18	S-3	CR	18	16 23 17	40	
	Medium dense, brown, silty fine to medium SAND, (SM), moist.	20 22 24	S-4	SS	18	8 10 12	22	
	Very dense, brown, silty fine to medium SAND, (SM), moist.	26	S-5A S-5B	CR	18	12 30 40	70	
+306.8	Very dense, brown, fine to coarse SAND, trace silt, (SP), dry.							
+305.5		28 30						

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Log of Boring **LB-3** Sheet 2 of 2

Project	Project No.
Industrial Development Site	700117701
Location	**Elevation and Datum**
16008 Amar Rd, City of Industry, CA	Approx, 333 ft (Referenced from Google Earth)

Elev. (ft)	Sample Description	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+303.0	Dense, brown, silty fine to medium SAND, (SM), dry.	30	S-6	SS	18	19 18 23	41	
+300.5	Hard, brown, sandy SILT, (ML), moist.	32						
		34						
			S-7A	CR	18	13 23 46	69	
+296.8	Very dense, brown, silty fine to medium SAND, (SM), moist.	36	S-7B					
+295.5	Dense, brown, clayey fine to medium SAND, trace silt, (SC), moist.	38						
		40	S-8	SS	18	5 14 19	33	
+290.5	Hard, brown, sandy SILT, trace clay, (ML), moist.	42						
		44						
			S-9A	CR	18	8 21 28	49	
+287.3	Dense, brown, silty fine to medium SAND, trace clay, (SM), moist.	46	S-9B					
+285.5	Very stiff, brown, silty CLAY, trace gravel, mottled black spots, (CL), wet.	48						
		50	S-10	SS	18	4 8 11	19	
+281.5	End of Boring at 51.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.	52						Bottom of boring at 5/16/2022 10:50 AM
		54						
		56						
		58						
		60						
		62						
		64						
		66						
		67.5						

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Log of Boring **LB-4** Sheet 1 of 1

Project Industrial Development Site		Project No. 700117701	
Location 16008 Amar Rd, City of Industry, CA		Elevation and Datum Approx, 335 ft (Referenced from Google Earth)	
Drilling Company ABC Liovin Drilling		Date Started 05/16/2022	Date Finished 05/16/2022
Drilling Equipment CME-75 Truck Mounted Drill		Completion Depth 26.5 ft	Rock Depth -
Size and Type of Bit 8-in O.D. Hollow Stem Auger		Number of Samples: Disturbed 5; Undisturbed -; Core -	
Casing Diameter (in) -	Casing Depth (ft) -	Water Level (ft.): First ▽ -; Completion ▼ -; 24 HR. ▼ -	
Casing Hammer -; Weight (lbs) -; Drop (in) -		Drilling Foreman Raul	
Sampler 2-in O.D. split spoon; 3-in O.D. Cal Mod.			
Sampler Hammer Automatic; Weight (lbs) 140; Drop (in) 30		Field Engineer Alexander Corob	

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+335.0 +334.7	4-inch Asphalt.	0						Started Drilling at 5/16/2022 2:14 PM
+334.4	3-inch Aggregate Base.							
+331.0	Brown, sandy CLAY, trace silt, (CL), moist.	2						
+327.5	Stiff, brown, sandy CLAY, trace silt, (CL), moist.	6	S-1	SS	18	3 5 8	13	
+322.5	Dense, orangish brown, clayey fine to coarse SAND, trace silt, trace fine gravel, (SC), moist.	10	S-2	CR	18	5 17 23	40	
	Medium dense, orangish brown, silty fine to medium SAND, trace clay, (SM), moist.	16	S-3	SS	18	5 5 7	12	
	Very dense, orangish brown, silty fine to medium SAND, (SM), moist.	20	S-4	CR	18	12 23 36	59	
+308.5	Medium dense, orangish brown, silty fine to medium SAND, (SM), moist.	26	S-5	SS	18	7 9 10	19	
	End of Boring at 26.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.	28						Bottom of boring at 5/16/2022 3:20 PM

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Log of Boring **LB-5** Sheet 1 of 1

Project Industrial Development Site		Project No. 700117701	
Location 16008 Amar Rd, City of Industry, CA		Elevation and Datum Approx, 334 ft (Referenced from Google Earth)	
Drilling Company ABC Liovin Drilling		Date Started 05/16/2022	Date Finished 05/16/2022
Drilling Equipment CME-75 Truck Mounted Drill		Completion Depth 26.5 ft	Rock Depth -
Size and Type of Bit 8-in O.D. Hollow Stem Auger		Number of Samples: Disturbed 5; Undisturbed -; Core -	
Casing Diameter (in) -	Casing Depth (ft) -	Water Level (ft.): First ▽ -; Completion ▼ -; 24 HR. ▼ -	
Casing Hammer -	Weight (lbs) -; Drop (in) -	Drilling Foreman Raul	
Sampler 2-in O.D. split spoon; 3-in O.D. Cal Mod.			
Sampler Hammer Automatic	Weight (lbs) 140; Drop (in) 30	Field Engineer Alexander Corob	

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+334.0		0						Started Drilling at 5/16/2022 1:05 PM
+333.7	4-inch Asphalt.							
+333.4	3-inch Aggregate Base.							
	Brown sandy CLAY, trace silt, (CL), moist.							
	Very stiff, brown sandy CLAY, trace silt, (CL), moist.	6	S-1	CR	18	6 11 17	28	
+326.5	Medium dense, brown, silty fine to coarse SAND, trace clay, (SM), moist.	10	S-2	SS	18	6 8 11	19	
	Medium dense, brown, silty fine to medium SAND, trace clay, (SM), moist.	16	S-3	CR	18	4 10 19	29	
+316.5	Dense, brown, fine to medium SAND, trace silt, (SP), dry.	20	S-4	SS	18	8 18 20	38	
+311.5	Dense, brown, silty fine to medium SAND, (SM), moist.	26	S-5	CR	18	10 18 23	41	
+307.5	End of Boring at 26.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.							Bottom of boring at 5/16/2022 2:07 PM

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Log of Boring **LB-6** Sheet 1 of 1

Project: Industrial Development Site		Project No.: 700117701	
Location: 16008 Amar Rd, City of Industry, CA		Elevation and Datum: Approx, 332 ft (Referenced from Google Earth)	
Drilling Company: ABC Liovin Drilling		Date Started: 05/17/2022	Date Finished: 05/17/2022
Drilling Equipment: CME-75 Truck Mounted Drill		Completion Depth: 6.5 ft	Rock Depth: -
Size and Type of Bit: 8-in O.D. Hollow Stem Auger		Number of Samples: Disturbed 2; Undisturbed -; Core -	
Casing Diameter (in): -	Casing Depth (ft): -	Water Level (ft.): First ▽ -; Completion ▼ -; 24 HR. ▼ -	
Casing Hammer: -	Weight (lbs): -; Drop (in): -	Drilling Foreman: Raul	
Sampler: 2-in O.D. split spoon; 3-in O.D. Cal Mod.			
Sampler Hammer: Automatic	Weight (lbs): 140; Drop (in): 30	Field Engineer: Alexander Corob	

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+332.0		0						Started Drilling at 5/17/2022 9:58 AM
+331.7	4-inch Asphalt							
+331.3	5-inch Aggregate Base							
	Dark brown, sandy CLAY, (SC).	2	B-1	BAG				
+329.0								
	Very stiff, brown, CLAY, trace silt, trace fine sand, (CL), moist.	4–6	S-1	SS	18	3 9 10	19	
+325.5	End of Boring at 6.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.							Bottom of boring at 5/17/2022 10:15 AM

Project Industrial Development Site	Project No. 700117701
Location 16008 Amar Rd, City of Industry, CA	Elevation and Datum Approx, 333 ft (Referenced from Google Earth)
Drilling Company ABC Liovin Drilling	Date Started 05/17/2022 — Date Finished 05/17/2022
Drilling Equipment CME-75 Truck Mounted Drill	Completion Depth 6.5 ft — Rock Depth -
Size and Type of Bit 8-in O.D. Hollow Stem Auger	Number of Samples — Disturbed 1 — Undisturbed - — Core -
Casing Diameter (in) - — Casing Depth (ft) -	Water Level (ft.) — First ▽ - — Completion ▼ - — 24 HR. ▼ -
Casing Hammer - — Weight (lbs) - — Drop (in) -	Drilling Foreman Raul
Sampler 2-in O.D. split spoon; 3-in O.D. Cal Mod.	
Sampler Hammer Automatic — Weight (lbs) 140 — Drop (in) 30	Field Engineer Alexander Corob

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
+333.0		0						Started Drilling at 5/16/2022 11:31 AM
+332.6	5-inch Asphalt.							
+332.3	4-inch Aggregate Base.							
	Dark brown, CLAY, trace fine sand, trace silt, (CL), moist.	2						
+329.0	Brown, clayey SAND, trace silt, (SC), moist.	4						
	Medium dense, brown, silty fine to medium SAND, some clay, (SC), moist.	6	S-1	SS	18	3 7 11	18	
+326.5	End of Boring at 6.5 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.	8						
		10						Bottom of boring at 5/16/2022 12:12 PM
		12						
		14						
		16						
		18						
		20						
		22						
		24						
		26						
		28						
		30						

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Log of Boring **LB-8/LP-1** Sheet 1 of 1

Project Industrial Development Site			Project No. 700117701		
Location 16008 Amar Rd, City of Industry, CA			Elevation and Datum Approx, 333 ft (Referenced from Google Earth)		
Drilling Company ABC Liovin Drilling			Date Started 05/16/2022	Date Finished 05/16/2022	
Drilling Equipment CME-75 Truck Mounted Drill			Completion Depth 8.5 ft	Rock Depth -	
Size and Type of Bit 8-in O.D. Hollow Stem Auger			Number of Samples	Disturbed 1	Undisturbed -
					Core -
Casing Diameter (in) -		Casing Depth (ft) -	Water Level (ft.)	First ▽ -	Completion ▼ -
					24 HR. ▼ -
Casing Hammer -	Weight (lbs) -	Drop (in) -	Drilling Foreman Raul		
Sampler 2-in O.D. split spoon; 3-in O.D. Cal Mod.			Field Engineer Alexander Corob		
Sampler Hammer Automatic	Weight (lbs) 140	Drop (in) 30			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	+333.0		0						Started Drilling at 5/17/2022 10:25 AM
■	+332.6	5-inch Asphalt.							
▨	+332.3	4-inch Aggregate Base. Dark brown, CLAY, trace fine sand, trace silt, (CL), moist.	2						
▨	+329.0	Brown, clayey SAND, trace silt, (SC), moist.	4 6						
▨		Dense, brown, silty fine to medium SAND, some clay, (SC), moist.	8	S-1	SS	18	10 18 27	45●	Bottom of boring at 5/17/2022 10:54 AM
	+323.0	End of Boring at 10 feet. No groundwater encountered. Boring backfilled with soil cuttings and surface patched with asphalt.	10 12 14 16 18 20 22 24 26 28 30						

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APPENDIX C
Percolation Test Results

PERCOLATION TEST DATA SHEET

Project:	16008 Amar Rd, City of Industry	Project No.:	700117701	Date:	5/17/2022
Test Hole No.:	LB-8 / LP-1	Tested By:	A. Corob	Updated:	5/25/2022
Depth of Test Hole (ft):	10	USCS Soil Classification:		CL	
PVP Pipe Dimension:	2-in I.D. x 10 ft long with 5 ft screen	Test Hole Diameter (in):		8	

Trial No.	Date	Time of Measurement	Initial Depth to Water (ft)	Time of Measurement	Final Depth to Water (ft)	Volume of Water Infiltrated (cu.in.)	Surface Area (sq.in.)	Time Interval (min)	Percolation Rate (in/hr)
Pre-Soak	5/16/2022	11:10 AM	0.00	11:20 AM	4.50				
#1 (Refill)	5/17/2022	11:20 AM	4.00	11:50 AM	4.16	0.5	4	30	0.24
#2 (Refill)	5/17/2022	11:50 AM	4.16	12:20 PM	4.27	0.3	4	30	0.18
#3 (Refill)	5/17/2022	12:20 PM	4.27	12:50 PM	4.36	0.3	4	30	0.15
#4 (Refill)	5/17/2022	12:50 PM	4.36	1:20 PM	4.45	0.3	4	30	0.15
#5 (Refill)	5/17/2022	1:20 PM	4.45	1:50 PM	4.51	0.2	4	30	0.11
#6 (Refill)	5/17/2022	1:50 PM	4.51	2:20 PM	4.57	0.2	4	30	0.11

Comments:	1. Percolation test was performed in accordance with the Boring Percolation Test Procedure provided in the "Guidelines for Design, Investigation, and Reporting - Low Impact Development Stormwater Infiltration," prepared by County of Los Angeles Department of Public Works, dated 30 June 2017. 2. Weather: Sunny and warm.	Average Stabilized Rate	0.12
		Reduction Factors $RF_t=2$, $RF_v=1$, $RF_s=1$	2.00
		Design Infiltration Rate (in/hr)	0.06

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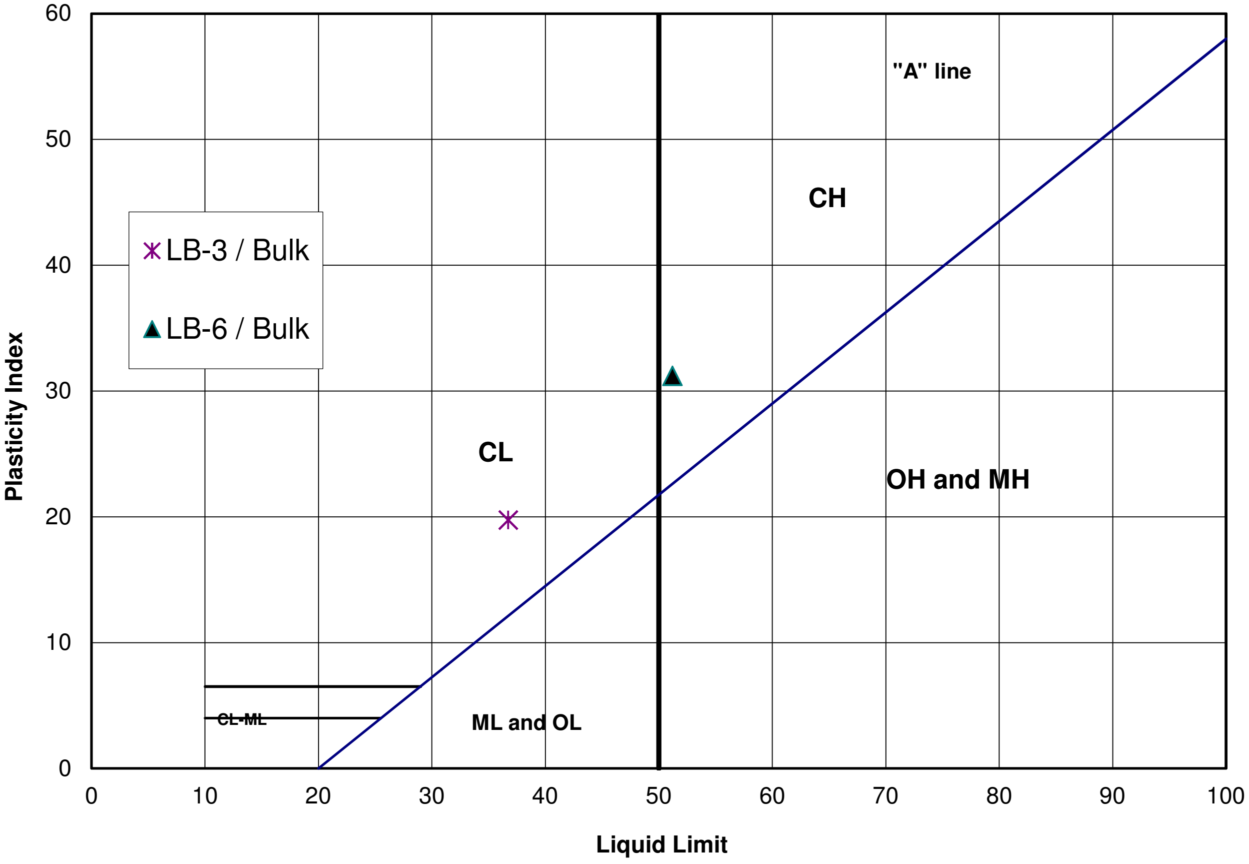
APPENDIX D
Laboratory Results

PLASTICITY INDEX _ ASTM D4318



Sample	Depth	LL	PL	PI	USCS	Material Description
LB-3 / Bulk		37	17	20	CL	
LB-6 / Bulk		51	20	31	CH	

Job Name: Langan # 700117701 Date: 6/7/22

Job No.: 2012-0057

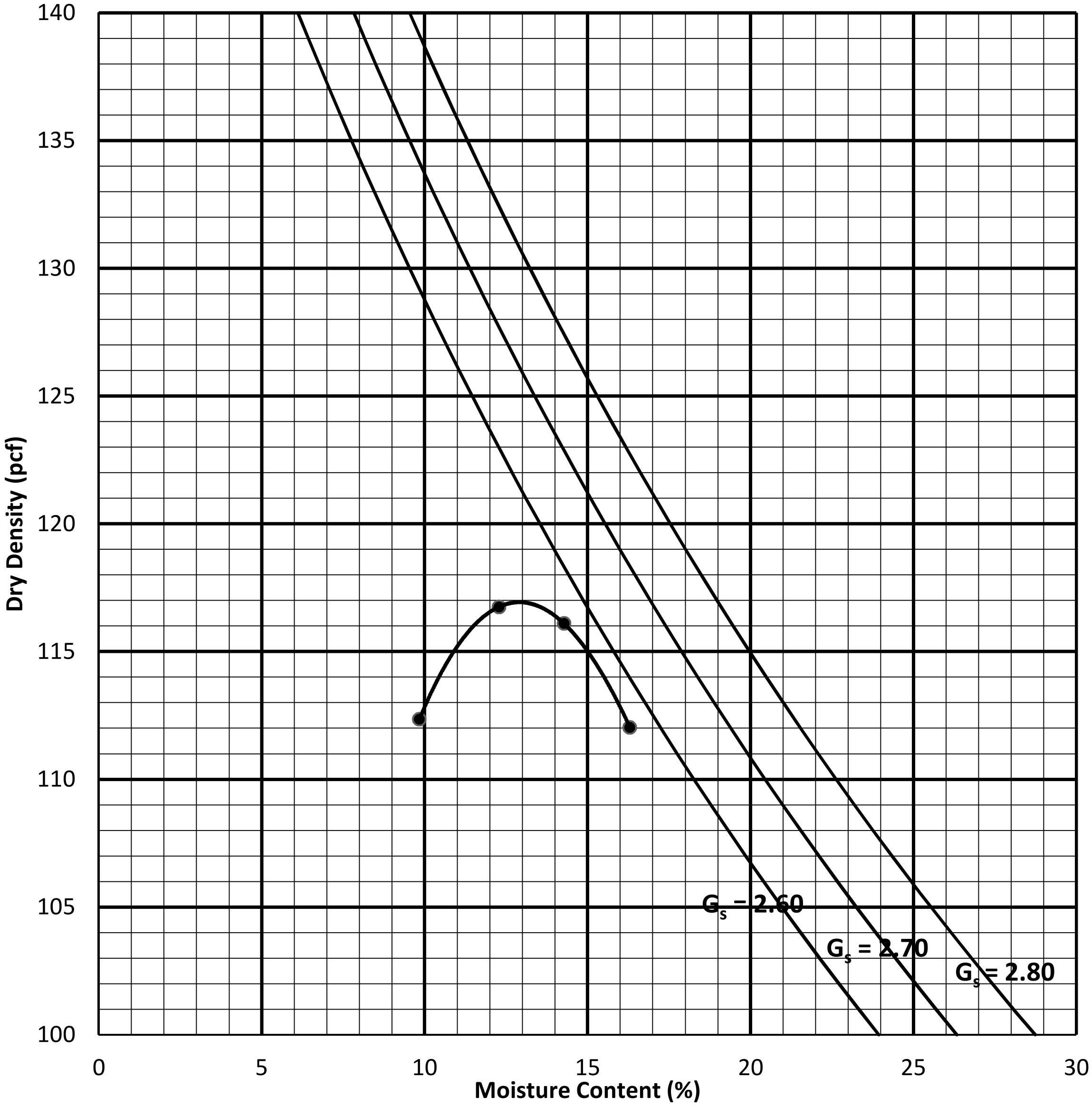
Geo**L**ogic **A**ssociates

COMPACTION TEST REPORT

Project: Langan # 700117701 **GLA No.** 2012-0057
Sample: LB-3 / B-1 **Date:** 6/4/2022
Description: Brown, Silty Clay **By:** LD

ASTM D1557	Method A	Volume (cf): 0.03333		# Blows: 25	# Layers: 5
Specimen		**A**	**B**	**C**	**D**
Wet Weight (grs)		1982	2006	1866	1970
Wet Density (pcf)		131.1	132.7	123.4	130.3
Moisture Content (%)		12.3	14.3	9.8	16.3
Dry Density (pcf)		116.7	116.1	112.4	112.0

Max. Dry Density : 117.0 pcf
Opt. Water Content: 13.0 %



'R' VALUE CA 301

Client: Langan

Date: 6/7/22

By: LD

Client's Job No.: 700117701

Sample : LB-6 / Bulk

GLA Reference: 2012-0057

Soil Type: Brown, Silty Clay

TEST SPECIMEN		A	B	C	D
Compactor Air Pressure	psi	**80**	**50**	**60**	
Initial Moisture Content	%	**9.9**	**9.9**	**9.9**	
Water Added	ml	**150**	**200**	**175**	
Moisture at Compaction	%	42.0	46.5	44.2	
Sample & Mold Weight	gms	**3103**	**3030**	**3093**	
Mold Weight	gms	**2102**	**2075**	**2103**	
Net Sample Weight	gms	1001	955	990	
Sample Height	in.	**2.499**	**2.485**	**2.493**	
Dry Density	pcf	85.5	79.5	83.4	
Pressure	lbs	**8925**	**3725**	**5050**	
Exudation Pressure	psi	711	297	402	
Expansion Dial	x 0.0001	**25**	**9**	**16**	
Expansion Pressure	psf	108	39	69	
Ph at 1000lbs	psi	**60**	**70**	**65**	
Ph at 2000lbs	psi	**136**	**152**	**141**	
Displacement	turns	**4.05**	**5.62**	**4.61**	
R' Value		10	2	7	
Corrected 'R' Value		**10**	**2**	**7**	

FINAL 'R' VALUE	
By Exudation Pressure (@ 300 psi):	**2**
By Epansion Pressure :	**N/A**
TI = 5	

Geo-Logic ASSOCIATES

WASH #200 SIEVE - ASTM D 1140-92

Job Name Langan # 700117701 Date 6-7-22

Job No. 2012-0057 By LD

Sample	LB-2 / S-1	**Sample**	LB-3 / S-4	**Sample**	LB-3 / S-6
Soil Type		Soil Type		Soil Type	
% water	20.2	% water	8.1	% water	10.2
Wet weight	148.9	Wet weight	222.7	Wet weight	222.8
Dry weight	123.9	Dry weight	206.0	Dry weight	202.2
+ 200 sieve	28.9	+ 200 sieve	165.7	+ 200 sieve	142.1
% Retained	23.3	% Retained	80.4	% Retained	70.3
%Pass. #200	**77**	**%Pass. #200**	**20**	**%Pass. #200**	**30**

Sample	LB-3 / S-10	**Sample**		**Sample**	
Soil Type		Soil Type		Soil Type	
% water	21.5	% water		% water	
Wet weight	166.9	Wet weight		Wet weight	
Dry weight	137.4	Dry weight		Dry weight	
+ 200 sieve	38.6	+ 200 sieve		+ 200 sieve	
% Retained	28.1	% Retained		% Retained	
%Pass. #200	**72**	**%Pass. #200**		**%Pass. #200**	

Sample		**Sample**		**Sample**	
Soil Type		Soil Type		Soil Type	
% water		% water		% water	
Wet weight		Wet weight		Wet weight	
Dry weight		Dry weight		Dry weight	
+ 200 sieve		+ 200 sieve		+ 200 sieve	
% Retained		% Retained		% Retained	
%Pass. #200		**%Pass. #200**		**%Pass. #200**	

Sample		**Sample**		**Sample**	
Soil Type		Soil Type		Soil Type	
% water		% water		% water	
Wet weight		Wet weight		Wet weight	
Dry weight		Dry weight		Dry weight	
+ 200 sieve		+ 200 sieve		+ 200 sieve	
% Retained		% Retained		% Retained	
%Pass. #200		**%Pass. #200**		**%Pass. #200**	

Geo-Logic
ASSOCIATES

MOISTURE DENSITY TESTS

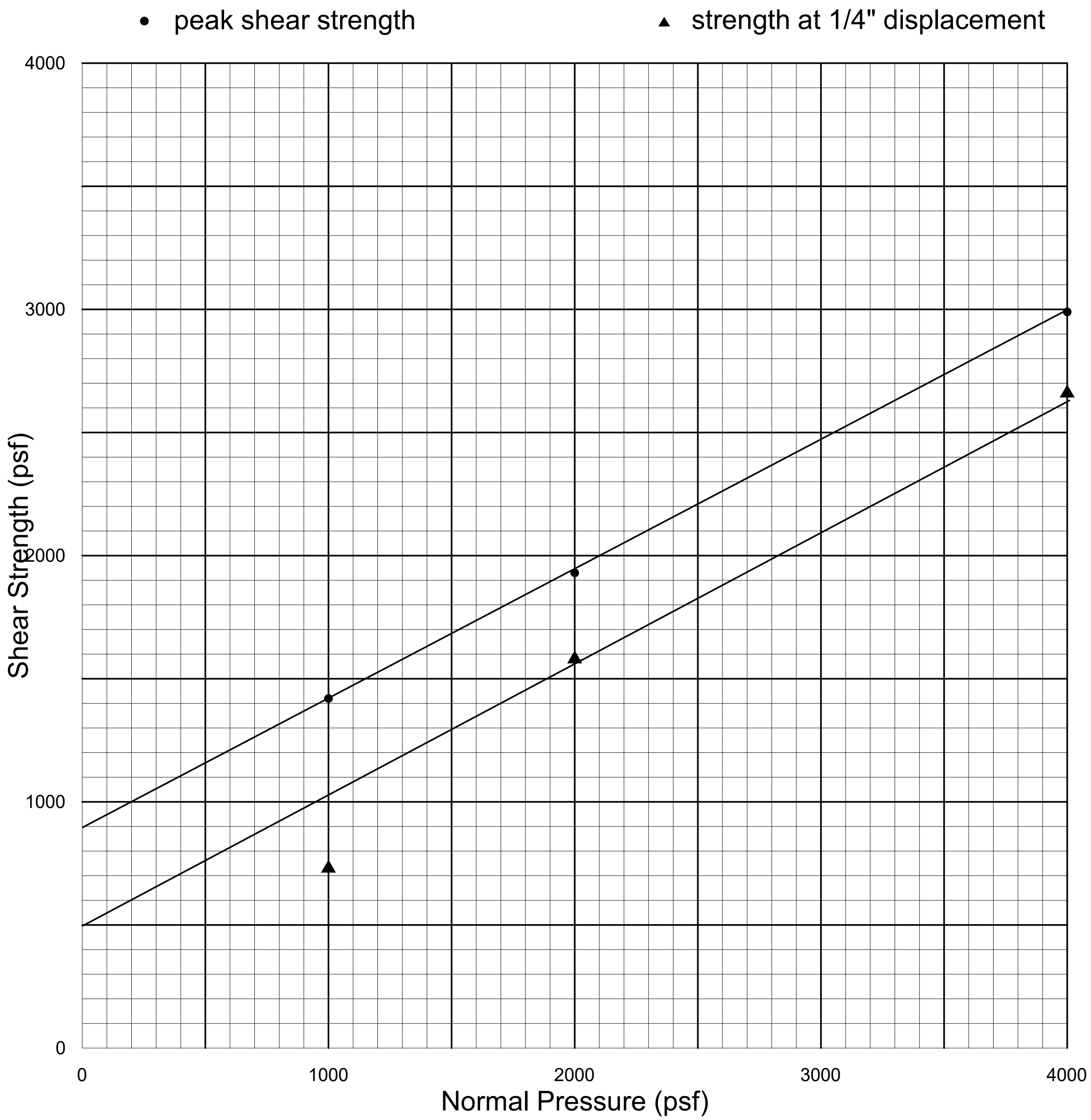
PROJECT Langan # 700117701 **JOB NO.** 2012-0057 **BY** LD **DATE** 06/07/22

Sample No.	**LB-1 / S-1**	**LB-2 / S-2**	**LB-4 / S-2**					
Depth (ft)	**4.0**	**10.0**	**10.0**					
Testing								
Soil Type	Brown, Silty Clay	Brown, Silty Clay	Brown, Silty Clay					
Wet+Tare	975.6	982.7	1022.3					
Tare	5	5	5					
Wet Weight	143.4	121.7	154.9					
Dry Weight	122.0	112.9	135.4					
Wet density	131.3	132.5	139.1					
% Water	17.5	7.8	14.4					
Dry Density	111.7	122.9	121.6					
O.B.Press(psf)								

Sample No.								
Depth (ft)								
Testing								
Soil Type								
Wet+Tare								
No. Ring								
Wet Weight								
Dry Weight								
Wet density								
% Water								
Dry Density								
O.B.Press(psf)								

Geo-Logic
ASSOCIATES

DIRECT SHEAR TEST - ASTM D-3080

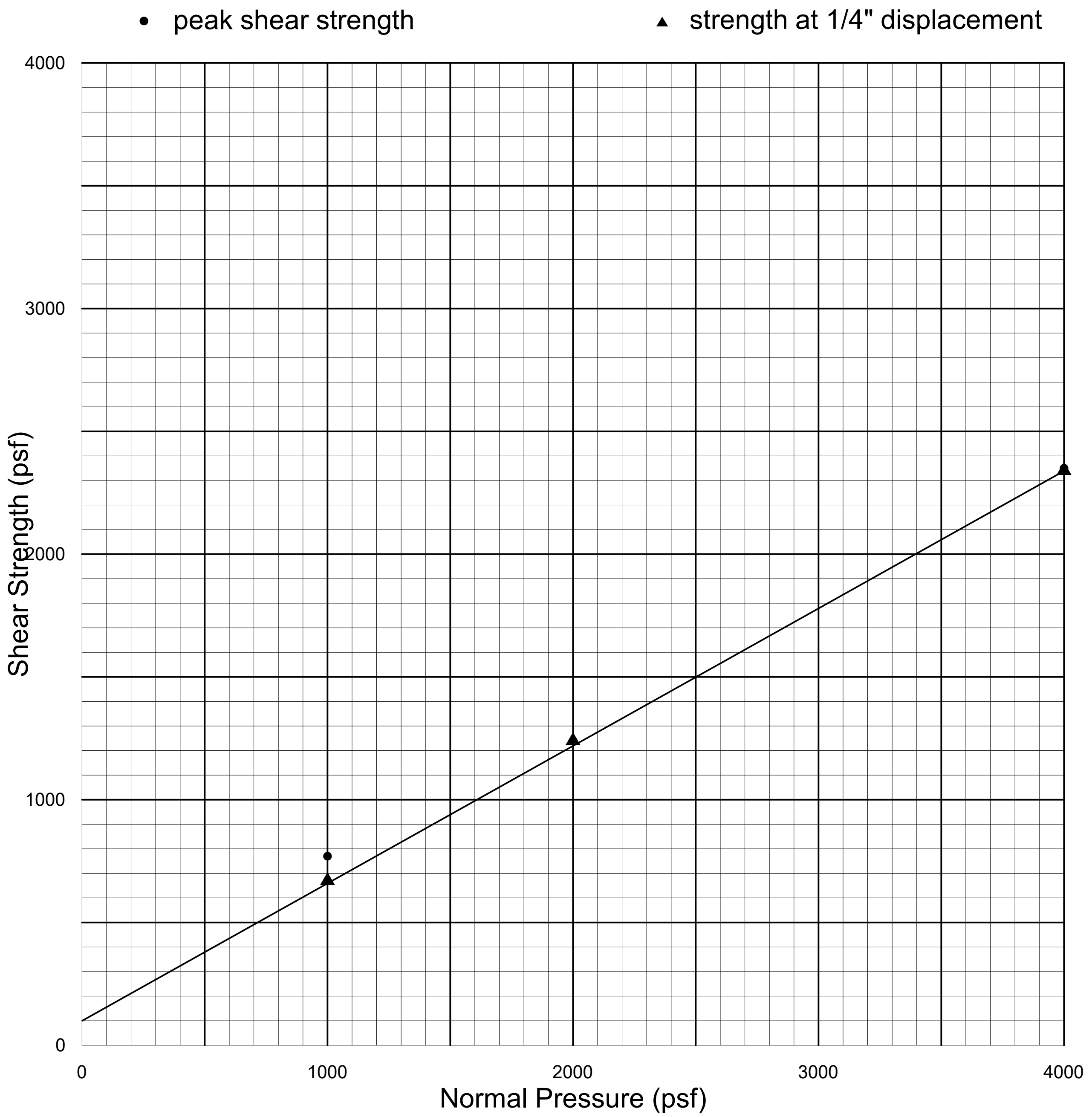


Strain Rate: 0.0042 in. / min.

Sample	**Type**	**Description**	**Dry Density (pcf)**	**Initial W.C. (%)**	**Final W.C. (%)**
LB-2/S-2	Undisturbed & Saturated	Silty Clay	122.9	7.8	25.4

Normal Pressure (psf)	Peak Shear Strength (psf)	Ultimate Shear Strength (psf)
1000	1420 @ 0.0800"	730
2000	1930 @ 0.1000"	1580
4000	2990 @ 0.1000"	2660
	C = 900 psf	C = 500 psf
	ϕ = 28 deg.	ϕ = 28 deg.

DIRECT SHEAR TEST - ASTM D-3080



Strain Rate: 0.0042 in. / min.

Sample	**Type**	**Description**	**Dry Density (pcf)**	**Initial W.C. (%)**	**Final W.C. (%)**
LB-3/B-1	Remolded & Saturated	Silty Clay	105.3 (90% Max Density)	13.0	21.7

Normal Pressure (psf)	Peak Shear Strength (psf)	Ultimate Shear Strength (psf)
1000	770 @ 0.0255"	670
2000	1240 @ 0.1600"	1240
4000	2350 @ 0.2450"	2340
	C = 100 psf	C = 100 psf
	$\phi =$ 29 deg.	$\phi =$ 29 deg.

EXPANSION INDEX - UBC 18-2 & ASTM D 4829-88

PROJECT Langan # 700117701 JOB NO. 2012-0057

Sample	LB-3 / Bulk		By	LD	Sample	LB-6 / Bulk		By	LD
Sta. No.					Sta. No.				
Soil Type	Brown, Silty Clay				Soil Type	Brown, Silty Clay			
Date	Time	Dial Reading	Wet+Tare	591.2	Date	Time	Dial Reading	Wet+Tare	563.6
6/2/2022	16:20	0.3817	Tare	219.6	6/2/2022	16:20	0.2989	Tare	214.8
		H2O	Net Weight	371.6			H2O	Net Weight	348.8
6/3/2022	10:00	0.3326	% Water	12.5	6/3/2022	10:00	0.2145	% Water	15
			Dry Dens.	100.1				Dry Dens.	91.9
			% Max					% Max	
			Wet+Tare	633				Wet+Tare	623.5
			Tare	219.6				Tare	214.8
			Net Weight	413.4				Net Weight	408.7
INDEX	49	4.9%	% Water	25.2	**INDEX**	84	8.4%	% Water	34.7

Sample			By		Sample			By	
Sta. No.					Sta. No.				
Soil Type					Soil Type				
Date		Dial Reading	Wet+Tare		Date		Dial Reading	Wet+Tare	
			Tare					Tare	
			Net Weight					Net Weight	
			% Water					% Water	
			Dry Dens.					Dry Dens.	
			% Max					% Max	
			Wet+Tare					Wet+Tare	
			Tare					Tare	
			Net Weight					Net Weight	
INDEX			% Water		**INDEX**			% Water	

Geo**L**ogic **A**ssociates

SOIL TEST RESULTS

SAMPLE NO.:	LB-3 / Bulk				
DESCRIPTION	Silty Clay				
DIRECT SHEAR TEST (type)					
Initial Moisture Content %					
Dry Density (pcf)					
Normal Stress (psf)					
Peak Shear Stress (psf)					
Ultimate Shear Stress (psf)					
Cohesion (psf)					
Internal Friction Angle (degrees)					
EXPANSION TEST UBC STD 18-2					
Initial Dry Density (pcf)					
Initial Moisture Content %					
Final Moisture Content %					
Pressure (psf)					
Expansion Index / Swell %					
CORROSIVITY TEST					
Resistivity (CTM643) (ohm-cm)	1600				
pH (CTM643)	7.4				
CHEMICAL TESTS					
Soluble Sulfate (CTM 417) (ppm)	156				
Chloride Content (CTM 422) (ppm)	27				
Wash #200 Sieve (ASTM-1140) %					
Sand Equivalent (ASTM D2419)					

Attachment C

Covenant and Agreement

Will provide for Final LID

Attachment D

Operations and Maintenance (O&M) Plan

Operation and Maintenance Plan

Hines

15940-16012 Amar Rd. & 15940-16065 Kaplan Ave.

City of Industry, CA 91744

APN: 8250-001-012,-013,-014,-015,-016,-017

REQUIRED PERMITS

This section must list any permits required for the implementation, operation, and maintenance of the BMPs. Possible examples are:

- Permits for connection to sanitary sewer
- Permits from California Department of Fish and Game
- Encroachment permits

If no permits are required, a statement to that effect should be made.

RECORDKEEPING

All records must be made available for review upon request.

RESPONSIBLE PARTY

The owner is aware of the maintenance responsibilities of the proposed BMPs. A funding mechanism is in place to maintain the BMPs at the frequency stated in the LID Plan. The contact information for the entity responsible is below:

Name:
Company: Hines
Title:
Address 1: 444 S. Flower St. Ste. 2100
Address 2: Los Angeles, CA 90071
Phone Number: 213-629-5200
Email:

BMP Name	BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Non-Structural Source Control BMPs			
Education for Property Owners, Tenants and Occupants	**Distribute appropriate materials to owners, tenants, and/or occupants via contract language, mailings, website, or meetings.**	**Information provided to owners and tenants upon sale or lease. Reminders sent or posted annually.**	**Owner**
Activity Restrictions	**Vehicle and equipment washing, vehicle and equipment maintenance and repair, fuel dispensing, outdoor processing, outdoor material storage, and food preparation activities are prohibited on-site at all times.**	**Ongoing**	**Owner**
Common Area Landscape Management	**Owner to provide maintenance of landscaping to meet current water efficiency. Monitor for runoff and efficiency. Mitigation of potential dangers of fertilizer and pesticide usage through the incorporation of an Integrated Pest Management Program (IPM).**	**Inspect weekly. Maintain monthly or as needed.**	**Owner**
Common Area Litter Control	**Litter patrol may be included with landscaping maintenance or with waste disposal services**	**Inspect weekly. Maintain monthly or as needed.**	**Owner**

BMP Name	BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Common Area Catch Basin Inspection	Owner to provide for inspection of common area catch basins. Clear inlets of trash, debris, and silt.	Inspect weekly and after rain events. Regular maintenance as needed	Owner
Street Sweeping Private Streets and Parking Lots	Vacuum sweeping of private streets and parking lots.	Regular street sweeping weekly.	Owner
Structural Source Control BMPs			
S-1: Storm Drain Message and Signage	Inspect and maintain legibility of storm drain stencils and signage. Check that all catch basins in paved areas marked or stenciled with "No Dumping-Drains to Ocean; No Descargue Basura" language. Replace/repaint markings if faded, damaged, removed, or otherwise illegible.	Inspect quarterly and maintain as necessary	Owner
S-3: Outdoor Trash Storage / Waste Storage Areas	Inspect and maintain trash areas to be clear of trash and debris.	Inspect weekly and maintain as necessary	Owner
S-4: Outdoor Loading Dock / Unloading Dock Area	Inspect and sweep loading dock areas. Cleanup spills immediately. Minimize and limit the use of water.	Inspect weekly and maintain as necessary. Cleanup spills immediately.	Owner
S-8: Landscape Irrigation Practices	Owner to provide for inspection of irrigation systems and connections for deficiencies. Correct deficiencies as needed.	Inspect weekly and maintain as necessary	Owner

BMP Name	BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
LID BMPs			
Modular Wetlands	**Inspection Activities** 1. Check for excess erosion or scour 2. Identify sediment accumulation that requires maintenance 3. Evaluate plant health and need for corrective action 4. Identify any needed corrective maintenance that will require site specific planning or design **Maintenance Activities** 1. Remove trash from screening device, 2. Remove sediment from separation chamber 3. Replace cartridge filter media 4. Replace drain drown filter media 5. Trim vegetation **Refer to the manufacturer's operations and maintenance manual included in Attachment D.**	**Inspect new systems monthly during the wet season and every other month during the dry season. This is to determine the amount of pollutant loading the system receives on a yearly basis. Average inspection interval is 6 to 12 months.** **Maintain as necessary. Average maintenance interval is 6 to 12 months.**	**Owner**

BMP Name	BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
ADS StormTech Chamber	**Inspect the Isolator Row for sediment. Remove all caps, lids, and covers. Using a flashlight and stadia rod, measure the depth of sediment and record the results in the maintenance log. If the sediment is at or above 3 inches in depth, clean out the Isolator Row using the JetVac process. Apply multiple passes of JetVac until the backflush water is clean. Vacuum the manhole sump as required. Replace all caps , lids, and covers, record observations and actions. Inspect and clean catch basins and manholes upstream of the StormTech system.**	**Inspect every 6 months and within 24 hours after at least two storm events greater than or equal to 0.5 inches.** **Maintain as necessary.**	**Owner**

Biofiltration Basin with Underdrains	**· Irrigate plants as needed during prolonged dry periods. In general, plants should be selected to be drought-tolerant and not require irrigation after establishment (two to three years).** **· Inspect flow entrances, ponding area, and surface overflow areas periodically, and replace soil, plant material, and/or mulch layer in areas if erosion has occurred. Properly-designed facilities with appropriate flow velocities should not cause erosion except potentially during in extreme events. If erosion occurs, the flow velocities and gradients within the biofiltration area and flow dissipation and erosion protection strategies in the pretreatment area and flow entrance should be reassessed. If sediment is deposited in the biofiltration area, identify the source of the sediment within the tributary area, stabilize the source, and remove excess surface deposits.** **· Prune and remove dead plant material as needed. Replace all dead plants, and if specific plants have a high mortality rate, assess the cause and, if necessary, replace with more appropriate species.** **· Remove weeds as needed until plants are established. Weed removal should become less frequent if the appropriate plant species are used and planting density is attained.** **· Select the proper soil mix and plants for optimal fertility, plant establishment, and growth to preclude the use of nutrient and pesticide supplements. By design, biofiltration facilities are located in areas where phosphorous and nitrogen levels are often elevated such that these should not be limiting nutrients. Addition of nutrients and pesticides may contribute pollutant loads to receiving waters.**	**Inspect every 6 months.** **Maintain as necessary.**	**Owner**

BMP Name	BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
	· In areas where heavy metals deposition is likely (i.e., tributary areas to industrial, vehicle dealerships/repair, parking lots, roads), replace mulch annually. In areas where metals deposition is less likely (i.e., residential lots), replace or add mulch as needed to maintain a two to three inch depth at least once every two years. **· Analyze soil for fertility and pollutant levels if necessary. Biofiltration soil media are designed to maintain long-term fertility and pollutant processing capability.** **· Eliminate standing water to prevent vector breeding.** **· Inspect overflow devices for obstructions or debris, which should be removed immediately. Repair or replace damaged pipes upon discovery.** **· Inspect, and clean if necessary, the underdrain.**		
FloGard+Plus Catch Basin Insert Filter	**Remove grate and set to the side. Inspect the catch basin for defects and possible illegal dumping. Use an industrial vacuum to remove collected materials from the liner. Inspect the filter medium pouches, filter liner, gaskets, stainless steel frame, and mounting brackets, etc., for continued serviceability. Minor damage or defects found shall be corrected on-the-spot and recorded. More extensive deficiencies, such as a torn liner, if approved by the customer representative, will be corrected and an invoice will be submitted to the representative along with the Maintenance Record. Place grate back into catch basin.**	**Prior to, during, and following the rainy season.** **Replace parts as needed.**	**Owner**

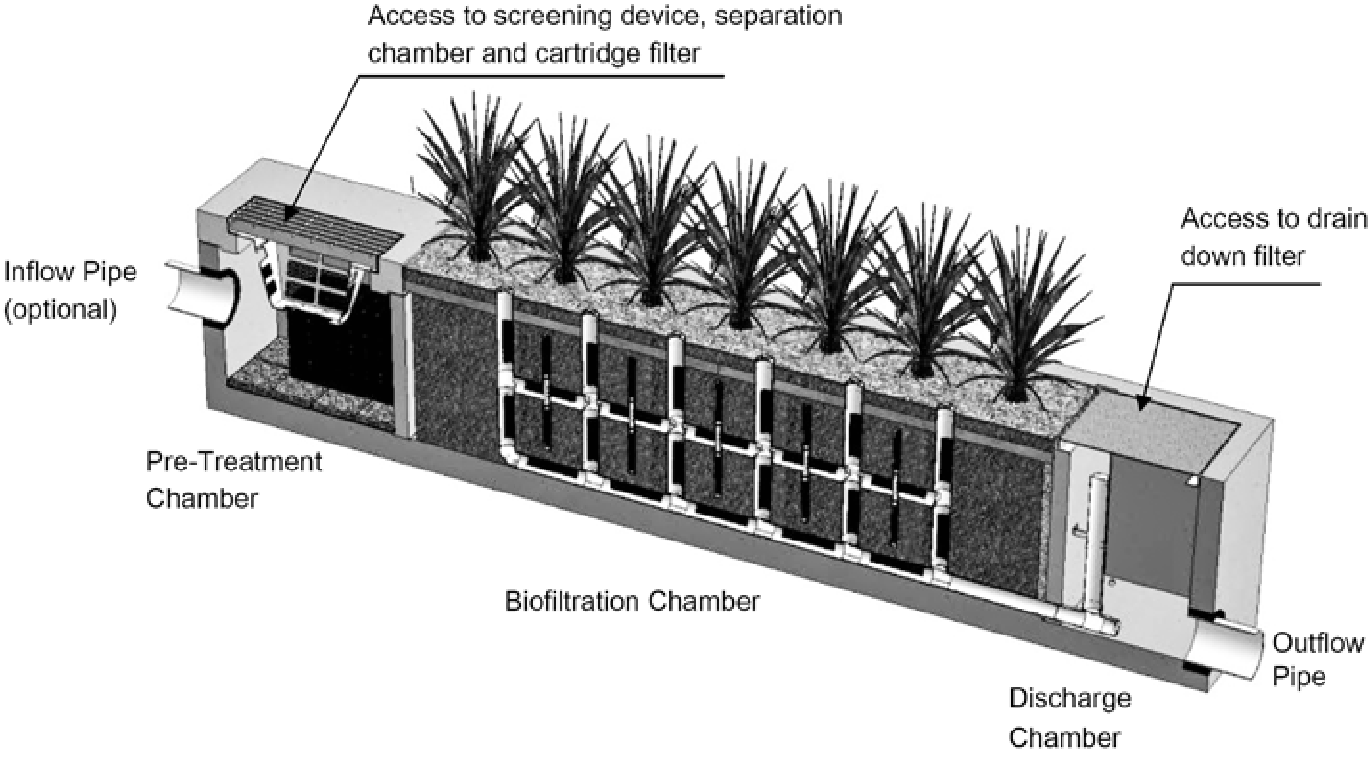
CONTECH®
ENGINEERED SOLUTIONS

Modular Wetlands® Linear
Operation & Maintenance Manual

MODULAR WETLANDS®

Maintenance Summary

- Remove Trash from Screening Device – average maintenance interval is 6 to 12 months.
  - *(5 minute average service time).*
- Remove Sediment from Separation Chamber – average maintenance interval is 12 to 24 months.
  - *(10 minute average service time).*
- Replace Cartridge Filter Media – average maintenance interval 12 to 24 months.
  - *(10-15 minute per cartridge average service time).*
- Replace Drain Down Filter Media – average maintenance interval is 12 to 24 months.
  - *(5 minute average service time).*
- Trim Vegetation – average maintenance interval is 6 to 12 months.
  - *(Service time varies).*



System Diagram

Maintenance Procedures

Screening Device

1. Remove grate or manhole cover to gain access to the screening device in the Pre- Treatment Chamber. Vault type units do not have screening device. Maintenance can be performed without entry.
2. Remove all pollutants collected by the screening device. Removal can be done manually or with the use of a vacuum truck.
3. Screening device can easily be removed from the Pre-Treatment Chamber to gain access to separation chamber and media filters below. Replace grate or manhole cover when completed.

Separation Chamber

1. Perform maintenance procedures of screening device listed above before maintaining the separation chamber.
2. With a pressure washer, spray down pollutants accumulated on walls and cartridge filters.
3. Vacuum out Separation Chamber and remove all accumulated pollutants. Replace screening device, grate or manhole cover when completed.

Cartridge Filters

1. Perform maintenance procedures on screening device and separation chamber before maintaining cartridge filters.
2. Enter separation chamber.
3. Unscrew the two bolts holding the lid on each cartridge filter and remove lid.
4. Remove each of 4 to 8 media cages holding the media in place.
5. Spray down the cartridge filter to remove any accumulated pollutants.
6. Vacuum out old media and accumulated pollutants.
7. Reinstall media cages and fill with new media from manufacturer or outside supplier. Manufacturer will provide specification of media and sources to purchase.
8. Replace the lid and tighten down bolts. Replace screening device, grate or manhole cover when completed.

Drain Down Filter

1. Remove hatch or manhole cover over discharge chamber and enter chamber. Entry into chambers may require confined space training based on state and local regulations.
2. Unlock and lift drain down filter housing and remove old media block. Replace with new media block. Lower drain down filter housing and lock into place.
3. Exit chamber and replace hatch or manhole cover.

Maintenance Notes

1. Following maintenance and/or inspection, it is recommended the maintenance operator prepare a maintenance/inspection record. The record should include any maintenance activities performed, amount and description of debris collected, and condition of the system and its various filter mechanisms.
2. The owner should keep maintenance/inspection record(s) for a minimum of five years from the date of maintenance. These records should be made available to the governing municipality for inspection upon request at any time.
3. Transport all debris, trash, organics and sediments to approved facility for disposal in accordance with local and state requirements.
4. Entry into chambers may require confined space training based on state and local regulations.
5. No fertilizer shall be used in the Biofiltration Chamber.
6. Irrigation should be provided as recommended by manufacturer and/or landscape architect. Amount of irrigation required is dependent on plant species. Some plants may require irrigation.

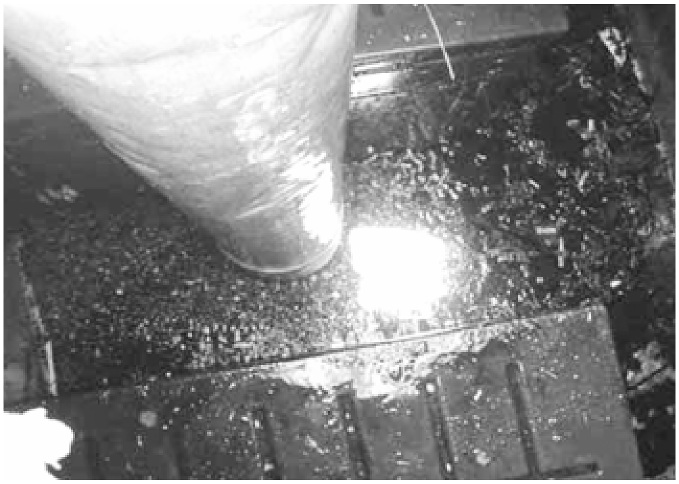
Maintenance Procedure Illustration

Screening Device

The screening device is located directly under the manhole or grate over the Pre-Treatment Chamber. It's mounted directly underneath for easy access and cleaning. Device can be cleaned by hand or with a vacuum truck.

Separation Chamber

The separation chamber is located directly beneath the screening device. It can be quickly cleaned using a vacuum truck or by hand. A pressure washer is useful to assist in the cleaning process.



Cartridge Filters

The cartridge filters are located in the Pre-Treatment chamber connected to the wall adjacent to the biofiltration chamber. The cartridges have removable tops to access the individual media filters. Once the cartridge is open media can be easily removed and replaced by hand or a vacuum truck.

Drain Down Filter

The drain down filter is located in the Discharge Chamber. The drain filter unlocks from the wall mount and hinges up. Remove filter block and replace with new block.

Trim Vegetation

Vegetation should be maintained in the same manner as surrounding vegetation and trimmed as needed. No fertilizer shall be used on the plants. Irrigation per the recommendation of the manufacturer and or landscape architect. Different types of vegetation requires different amounts of irrigation.

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Inspection Report
Modular Wetlands Linear

For Office Use Only

(Reviewed By)

(Date)
Office personnel to complete section to the left.

Project Name ______________________________

Project Address ______________________________ (city) (Zip Code)

Owner / Management Company ______________________________

Contact ____________________ Phone ( ) –

Inspector Name ____________________ Date ____/____/______ Time __________ AM / PM

Type of Inspection ☐ Routine ☐ Follow Up ☐ Complaint ☐ Storm Storm Event in Last 72-hours? ☐ No ☐ Yes

Weather Condition ____________________ Additional Notes ____________________

Inspection Checklist

Modular Wetland System Type (Curb, Grate or UG Vault): ____________ Size (22', 14' or etc.): ____________

Structural Integrity:	**Yes**	**No**	**Comments**	
Damage to pre-treatment access cover (manhole cover/grate) or cannot be opened using normal lifting pressure?				
Damage to discharge chamber access cover (manhole cover/grate) or cannot be opened using normal lifting pressure?				
Does the MWS unit show signs of structural deterioration (cracks in the wall, damage to frame)?				
Is the inlet/outlet pipe or drain down pipe damaged or otherwise not functioning properly?				
Working Condition:				
Is there evidence of illicit discharge or excessive oil, grease, or other automobile fluids entering and clogging the unit?				
Is there standing water in inappropriate areas after a dry period?				
Is the filter insert (if applicable) at capacity and/or is there an accumulation of debris/trash on the shelf system?				
Does the depth of sediment/trash/debris suggest a blockage of the inflow pipe, bypass or cartridge filter? If yes, specify which one in the comments section. Note depth of accumulation in in pre-treatment chamber.				Depth:
Does the cartridge filter media need replacement in pre-treatment chamber and/or discharge chamber?			Chamber:	
Any signs of improper functioning in the discharge chamber? Note issues in comments section.				
Other Inspection Items:				
Is there an accumulation of sediment/trash/debris in the wetland media (if applicable)?				
Is it evident that the plants are alive and healthy (if applicable)? Please note Plant Information below.				
Is there a septic or foul odor coming from inside the system?				

Waste:	**Yes**	**No**
Sediment / Silt / Clay		
Trash / Bags / Bottles		
Green Waste / Leaves / Foliage		

Recommended Maintenance	
No Cleaning Needed	
Schedule Maintenance as Planned	
Needs Immediate Maintenance	

Plant Information	
Damage to Plants	
Plant Replacement	
Plant Trimming	

Additional Notes: ______________________________

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Cleaning and Maintenance Report
Modular Wetlands Linear

Project Name ______________________________

Project Address ______________________________ (city) (Zip Code)

Owner / Management Company ______________________________

Contact ______________________________ Phone (   )   –

Inspector Name ______________________________ Date ____ / ____ / ______ Time __________ AM / PM

Type of Inspection ☐ Routine ☐ Follow Up ☐ Complaint ☐ Storm Storm Event in Last 72-hours? ☐ No ☐ Yes

Weather Condition ______________________________ Additional Notes ______________________________

For Office Use Only

(Reviewed By)

(Date)

Office personnel to complete section to the left.

Site Map #	GPS Coordinates of Insert	Manufacturer / Description / Sizing	Trash Accumulation	Foliage Accumulation	Sediment Accumulation	Total Debris Accumulation	Condition of Media 25/50/75/100 (will be changed @ 75%)	Operational Per Manufactures' Specifications (If not, why?)
	Lat: Long:	MWS Catch Basins						
		MWS Sedimentation Basin						
		Media Filter Condition						
		Plant Condition						
		Drain Down Media Condition						
		Discharge Chamber Condition						
		Drain Down Pipe Condition						
		Inlet and Outlet Pipe Condition						

Comments:

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800-338-1122

WWW.CONTECHES.COM

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SUPPORT

DRAWINGS AND SPECIFICATIONS ARE AVAILABLE AT WWW.CONTECHES.COM

Modular Wetlands Maintenance Guide 08/22

StormTech®
Detention • Retention • Water Quality
An ADS company

Isolator® Row O&M Manual

THE MOST **ADVANCED** NAME IN WATER MANAGEMENT SOLUTIONS™

THE ISOLATOR® ROW

INTRODUCTION

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row is a technique to inexpensively enhance Total Suspended Solids (TSS) removal and provide easy access for inspection and maintenance.

THE ISOLATOR ROW

The Isolator Row is a row of StormTech chambers, either SC-160LP, SC-310, SC-310-3, SC-740, DC-780, MC-3500 or MC-4500 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for settling and filtration of sediment as storm water rises in the Isolator Row and ultimately passes through the filter fabric. The open bottom chambers and perforated sidewalls (SC-310, SC- 310-3 and SC-740 models) allow storm water to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the storage areas of the adjacent stone and chambers from sediment accumulation.

Two different fabrics are used for the Isolator Row. A woven geotextile fabric is placed between the stone and the Isolator Row chambers. The tough geotextile provides a media for storm water filtration and provides a durable surface for maintenance operations. It is also designed to prevent scour of the underlying stone and remain intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the perforations in the sidewall of the chamber. The non-woven fabric is not required over the SC-160LP, DC-780, MC-3500 or MC-4500 models as these chambers do not have perforated side walls.

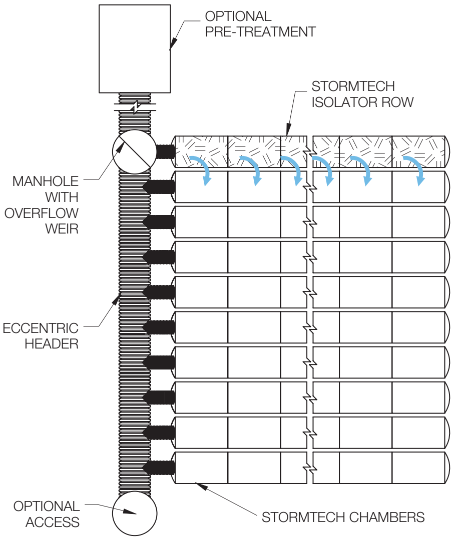
The Isolator Row is typically designed to capture the “first flush” and offers the versatility to be sized on a volume basis or flow rate basis. An upstream manhole not only provides access to the Isolator Row but typically includes a high flow weir such that storm water flowrates or volumes that exceed the capacity of the Isolator Row overtop the over flow weir and discharge through a manifold to the other chambers.

The Isolator Row may also be part of a treatment train. By treating storm water prior to entry into the chamber system, the service life can be extended and pollutants such as hydrocarbons can be captured. Pre-treatment best management practices can be as simple as deep sump catch basins, oil-water separators or can be innovative storm water treatment devices. The design of the treatment train and selection of pretreatment devices by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, the Isolator Row is recommended by StormTech as an effective means to minimize maintenance requirements and maintenance costs.

Note: See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row.

Looking down the Isolator Row from the manhole opening, woven geotextile is shown between the chamber and stone base.

StormTech Isolator Row with Overflow Spillway (not to scale)



ISOLATOR ROW INSPECTION/MAINTENANCE

INSPECTION

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

The Isolator Row incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row, clean-out should be performed.

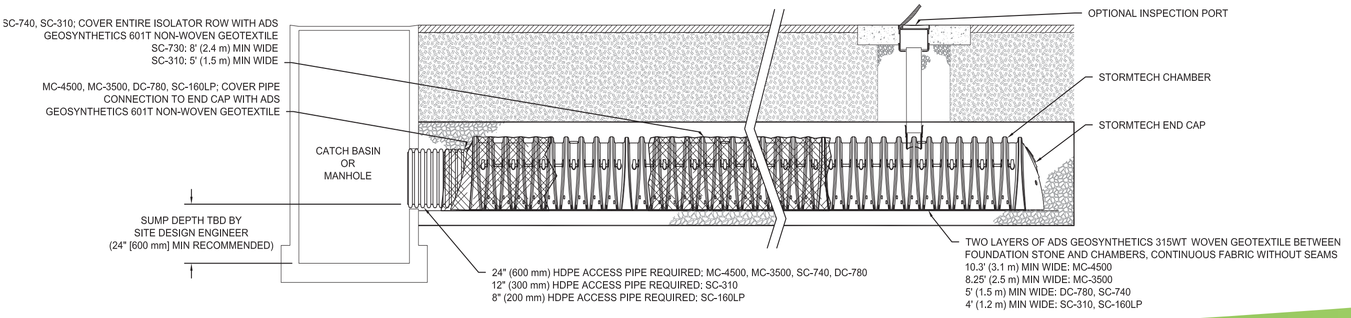
MAINTENANCE

The Isolator Row was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. Most JetVac reels have 400 feet of hose allowing maintenance of an Isolator Row up to 50 chambers long. **The JetVac process shall only be performed on StormTech Isolator Rows that have AASHTO class 1 woven geotextile (as specified by StormTech) over their angular base stone.**

StormTech Isolator Row (not to scale)

Note: Non-woven fabric is only required over the inlet pipe connection into the end cap for SC-160LP, DC-780, MC-3500 and MC-4500 chamber models and is not required over the entire Isolator Row.



ISOLATOR ROW STEP BY STEP MAINTENANCE PROCEDURES

STEP 1

Inspect Isolator Row for sediment.

- A) Inspection ports (if present)
  - i. Remove lid from floor box frame
  - ii. Remove cap from inspection riser
  - iii. Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.
  - iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.
- B) All Isolator Rows
  - i. Remove cover from manhole at upstream end of Isolator Row
  - ii. Using a flashlight, inspect down Isolator Row through outlet pipe
    1. Mirrors on poles or cameras may be used to avoid a confined space entry
    2. Follow OSHA regulations for confined space entry if entering manhole
  - iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2. If not, proceed to Step 3.

STEP 2

Clean out Isolator Row using the JetVac process.

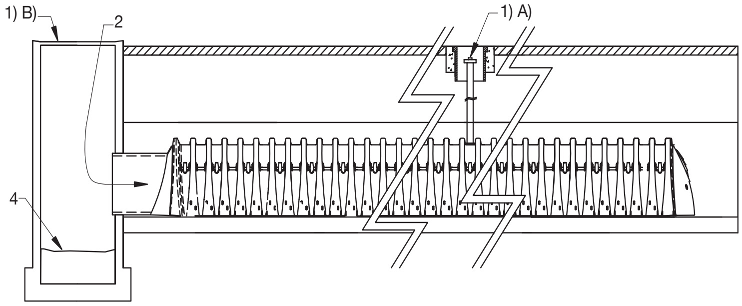
- A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
- B) Apply multiple passes of JetVac until backflush water is clean
- C) Vacuum manhole sump as required

STEP 3

Replace all caps, lids and covers, record observations and actions.

STEP 4

Inspect & clean catch basins and manholes upstream of the StormTech system.



SAMPLE MAINTENANCE LOG

Date	Stadia Rod Readings		Sediment Depth (1)–(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

Advanced Drainage Systems, Inc.
4640 Trueman Blvd., Hilliard, OH 43026
1-800-821-6710 www.ads-pipe.com

StormTech Maintenance Log

Project Name:
Location:

StormTech®
www.stormtech.com

	Stadia Rod Readings				
Date	**Fixed point to chamber bottom (1)**	**Fixed point to top of sediment (2)**	**Sediment Depth (1) - (2)**	**Observations / Actions**	**Inspector**

FLOGARD+PLUS®
CATCH BASIN INSERT FILTER

Inspection and Maintenance Guide

*A division of
Oldcastle Infrastructure*

Water

SCOPE:

Federal, State and Local Clean Water Act regulations and those of insurance carriers require that stormwater filtration systems be maintained and serviced on a recurring basis. The intent of the regulations is to ensure that the systems, on a continuing basis, efficiently remove pollutants from stormwater runoff thereby preventing pollution of the nation's water resources. These specifications apply to the FloGard+Plus® Catch Basin Insert Filter.

RECOMMENDED FREQUENCY OF SERVICE:

Drainage Protection Systems (DPS) recommends that installed FloGard+Plus Catch Basin Insert Filters be serviced on a recurring basis. Ultimately, the frequency depends on the amount of runoff, pollutant loading and interference from debris (leaves, vegetation, cans, paper, etc.); however, it is recommended that each installation be serviced a minimum of three times per year, with a change of filter medium once per year. DPS technicians are available to do an on-site evaluation, upon request.

RECOMMENDED TIMING OF SERVICE:

DPS guidelines for the timing of service are as follows:

1. For areas with a definite rainy season: Prior to, during and following the rainy season.
2. For areas subject to year-round rainfall: On a recurring basis (at least three times per year).
3. For areas with winter snow and summer rain: Prior to and just after the snow season and during the summer rain season.
4. For installed devices not subject to the elements (wash racks, parking garages, etc.): On a recurring basis (no less than three times per year).

SERVICE PROCEDURES:

1. The catch basin grate shall be removed and set to one side. The catch basin shall be visually inspected for defects and possible illegal dumping. If illegal dumping has occurred, the proper authorities and property owner representative shall be notified as soon as practicable.
2. Using an industrial vacuum, the collected materials shall be removed from the liner. (Note: DPS uses a truck-mounted vacuum for servicing FloGard+Plus catch basin inserts).
3. When all of the collected materials have been removed, the filter medium pouches shall be removed by unsnapping the tether from the D-ring and set to one side. The filter liner, gaskets, stainless steel frame and mounting brackets, etc., shall be inspected for continued serviceability. Minor damage or defects found shall be corrected on-the-spot and a notation made on the Maintenance Record. More extensive deficiencies that affect the efficiency of the filter (torn liner, etc.), if approved by the customer representative, will be corrected and an invoice submitted to the representative along with the Maintenance Record.
4. The filter medium pouches shall be inspected for defects and continued serviceability and replaced as necessary, and the pouch tethers re-attached to the liner's D-ring.
5. The grate shall be replaced.

REPLACEMENT AND DISPOSAL OF EXPOSED FILTER MEDIUM AND COLLECTED DEBRIS

The frequency of filter medium exchange will be in accordance with the existing DPS-Customer Maintenance Contract. DPS recommends that the medium be changed at least once per year. During the appropriate service, or if so determined by the service technician during a non-scheduled service, the filter medium will be replaced with new material. Once the exposed pouches and debris have been removed, DPS has possession and must dispose of it in accordance with local, state and federal agency requirements.

DPS also has the capability of servicing all manner of storm drain filters, catch basin inserts and catch basins without inserts, underground oil/water separators, stormwater interceptors and other such devices. All DPS personnel are highly qualified technicians and are confined-space trained and certified. Call us at (888) 950-8826 for further information and assistance.

FLOGARD+PLUS®
CATCH BASIN INSERT FILTER

OUR MARKETS

BUILDING STRUCTURES

COMMUNICATIONS

WATER

ENERGY

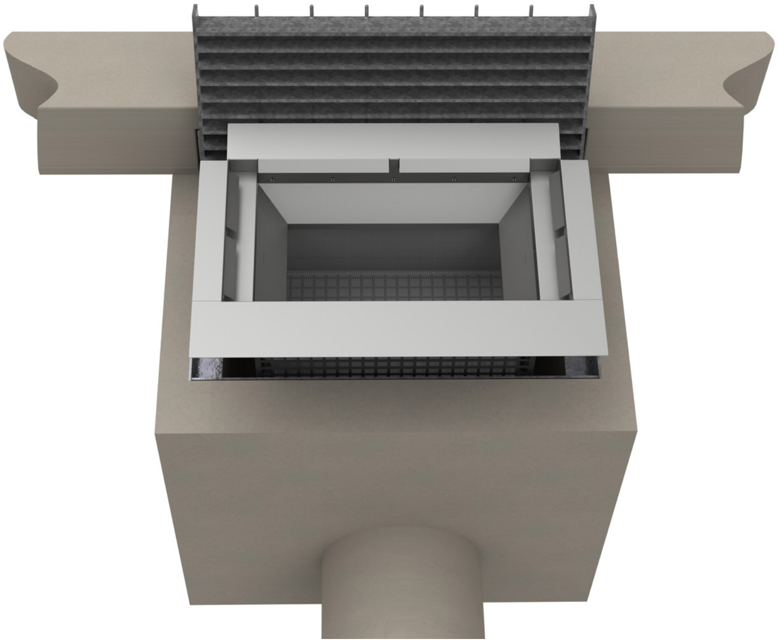
TRANSPORTATION

Oldcastle Precast®

FLOGARD +PLUS®

Replacement & Repair

Instruction Manual



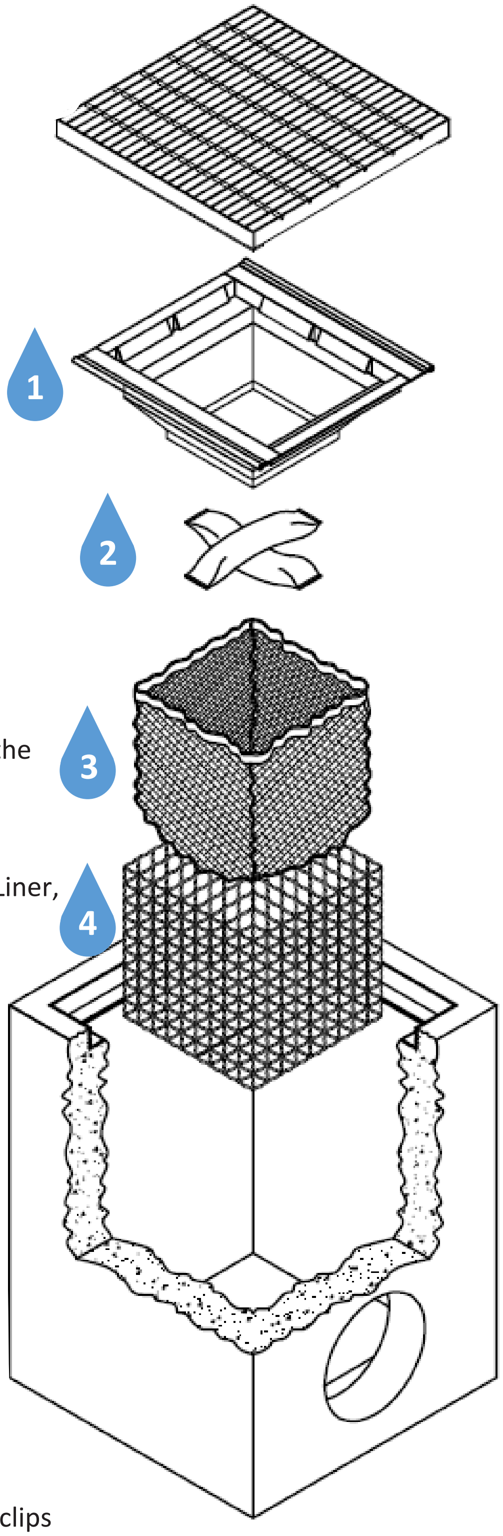
Stormwater

FloGard Plus Replacement and Repair

Parts of the FloGard Plus Inlet Filter-

1. FloGard Stainless Steel Support Frame
2. Fossil Rock Absorbent Pouches
3. Liner
4. GeoGrid Support Basket & Cable

* Grate and Basin NOT INCLUDED



Disassembly:

1. Clear FloGard of any existing debris by hand or vacuum.
2. Unclip and remove the Fossil Rock pouches from the inside Liner.
3. Lift the FloGard from the catch basin.
4. Using a slotted screw driver, carefully pry open the metal tabs holding the GeoGrid and Cable in place. Separate the GeoGrid and Liner from the FloGard frame.
5. Unclip the Liner from the inside of the GeoGrid. If you are reusing the Liner, rinse thoroughly with water and inspect for tears. (If torn, mend with stainless steel wire or replace the Liner).
6. Rinse and inspect the GeoGrid Basket and the reinforcing cable. (If torn, mend with stainless steel wire or replace the GeoGrid).
7. Rinse and inspect the Stainless Steel FloGard frame.

Reassembly:

1. Fully expand the GeoGrid Basket and orient to the FloGard frame. Hook cable and GeoGrid to the FloGard frame metal tabs and close the tabs using slotted screwdriver. Move around the FloGard until all tabs are closed and GeoGrid is secured to the Frame.
2. Expand and orient the Liner, locating the clips at each corner and side. Push the Liner through the center of the FloGard frame and secure the clips to the GeoGrid Basket close to the top support cable. Push the Liner to expand inside of the basket.
3. Clip new Fossil Rock Rubberizer pouches to the inside of the Liner.
4. Lower FloGard back into the basin, replace grate.

FLOGARD +PLUS®

OUR MARKETS

BUILDING STRUCTURES

COMMUNICATIONS

WATER

ENERGY

TRANSPORTATION

Oldcastle Precast®
www.oldcastlestormwater.com
800-579-8819

Stormwater
June 2018 v.1

- The inlet to the riser should be at the ponding depth (18 inches for fenced biofiltration areas and 6 inches for areas that are not fenced), and be capped with a spider cap to exclude floating mulch and debris. Spider caps should be screwed in or glued (e.g., not removable). The overflow device should convey stormwater runoff in excess of 1.5 times the SWQDv that is not reliably retained on the project site to an approved discharge location (another stormwater quality control measure, storm drain system, or receiving water).

Maintenance Requirements

Maintenance and regular inspections are important for proper function of biofiltration areas. Biofiltration areas require annual plant, soil, and mulch layer maintenance to ensure optimal infiltration, storage, and pollutant removal capabilities. In general, biofiltration maintenance requirements are typical landscape care procedures and include:

- Irrigate plants as needed during prolonged dry periods. In general, plants should be selected to be drought-tolerant and not require irrigation after establishment (two to three years).
- Inspect flow entrances, ponding area, and surface overflow areas periodically, and replace soil, plant material, and/or mulch layer in areas if erosion has occurred. Properly-designed facilities with appropriate flow velocities should not cause erosion except potentially during in extreme events. If erosion occurs, the flow velocities and gradients within the biofiltration area and flow dissipation and erosion protection strategies in the pretreatment area and flow entrance should be reassessed. If sediment is deposited in the biofiltration area, identify the source of the sediment within the tributary area, stabilize the source, and remove excess surface deposits.
- Prune and remove dead plant material as needed. Replace all dead plants, and if specific plants have a high mortality rate, assess the cause and, if necessary, replace with more appropriate species.
- Remove weeds as needed until plants are established. Weed removal should become less frequent if the appropriate plant species are used and planting density is attained.
- Select the proper soil mix and plants for optimal fertility, plant establishment, and growth to preclude the use of nutrient and pesticide supplements. By design, biofiltration facilities are located in areas where phosphorous and nitrogen levels are often elevated such that these should not be limiting nutrients. Addition of nutrients and pesticides may contribute pollutant loads to receiving waters.
- In areas where heavy metals deposition is likely (i.e., tributary areas to industrial, vehicle dealerships/repair, parking lots, roads), replace mulch annually. In areas where metals deposition is less likely (i.e., residential lots), replace or add mulch as needed to maintain a two to three inch depth at least once every two years.

- Analyze soil for fertility and pollutant levels if necessary. Biofiltration soil media are designed to maintain long-term fertility and pollutant processing capability.
- Eliminate standing water to prevent vector breeding.
- Inspect overflow devices for obstructions or debris, which should be removed immediately. Repair or replace damaged pipes upon discovery.
- Inspect, and clean if necessary, the underdrain.

A summary of potential problems that need to be addressed by maintenance activities is presented in Table E-13.

The County requires execution of a maintenance agreement to be recorded by the property owner for the on-going maintenance of any privately-maintained stormwater quality control measures. The property owner is responsible for compliance with the maintenance agreement. A sample maintenance agreement is presented in Appendix H.

Table E-13. Biofiltration Troubleshooting Summary

Problem	Conditions When Maintenance Is Needed	Maintenance Required
Vegetation	Overgrown vegetation	Mow and prune vegetation as appropriate.
	Presence of invasive, poisonous, nuisance, or noxious vegetation or weeds	Remove this vegetation and plant native species as needed.
Trash and Debris	Trash, plant litter, and dead leaves present	Remove and properly dispose of trash and debris.
Irrigation (if applicable)	Not functioning correctly	Check irrigation system for clogs or broken lines and repair as needed.
Inlet/Overflow	Inlet/overflow areas clogged with sediment and/or debris	Remove material.
	Overflow pipe blocked or broken	Repair as needed.
Erosion/Sediment Accumulation	Splash pads or spreader incorrectly placed Presence of erosion or sediment accumulation	Check inlet structure to ensure proper function. Repair, or replace if necessary, the inlet device. Repair eroded areas with gravel as needed. Re-grade the biofiltration area as needed.
Contaminants and Pollution	Any evidence of oil, gasoline, contaminants, or other pollutants	Remove any evidence of visual contamination from floatables such as oil and grease.
Standing water	Standing water observed more than 96 hours after storm event	Inspect, and clean as needed, the underdrain to ensure proper function. Clear clogs as needed. Remove and replace planter media (sand, gravel, topsoil, mulch) and vegetation.

Attachment E

Plans

CAUTION: IF THIS SHEET IS NOT 24"x36" IT IS A REDUCED PRINT

PRELIMINARY GRADING PLAN
HINES INDUSTRY HILLS
15940-16012 AMAR RD. & 15940-16065 KAPLAN AV.
CITY OF INDUSTRY, CA. 91744

PROJECT INFORMATION

GENERAL INFORMATION

GRADING PERMIT APPLICATION NO.: GR TBD
EARTHWORK VOLUMES: CUT: 42,000± (CY); FILL: 24,000± (CY)
OVER EXCAVATION/ ALLUVIAL REMOVAL & COMPACTION: 24,000± (CY)
IMPORT: 6,000± (CY); EXPORT LOCATION: TBD
TOTAL DISTURBED AREA: 10.091 (ACRES)
TOTAL PROPOSED LANDSCAPE AREA: 49,675 SQUARE FEET
TOTAL TURF AREA: 0% (PERCENT OF TOTAL PROPOSED LANDSCAPING)
TOTAL DROUGHT TOLERANT LANDSCAPING AREA: TBD % (PERCENT OF TOTAL PROPOSED LANDSCAPING)
PRE-DEVELOPMENT IMPERVIOUS AREA: 395,751 SQUARE FEET = 9.085 ACRES
POST-DEVELOPMENT IMPERVIOUS AREA: 389,875 SQUARE FEET = 8.950 ACRES
WASTE DISCHARGE IDENTIFICATION NUMBER (WDID #): TBD
CONSTRUCTION & DEMOLITION WASTE MANAGEMENT PLAN (CWMP ID): TBD
POST-CONSTRUCTION BMP FEATURE(S) GPS COORDINATES:
DMA A - T-6: PROPRIETARY BIOTREATMENT - MWS-8-8-V: 34° 2' 9.6" N, -117° 56' 13.1994" W
DMA B - T-6: PROPRIETARY BIOTREATMENT - MWS-8-8-V: 34° 2' 2.3994" N, -117° 56' 13.1994" W
DMA C - BIO-1: BIOFILTRATION BASIN: 34° 2' 2.3994" N, -117° 56' 9.6" W

PROPERTY INFORMATION

PROPERTY ADDRESS (IF EXIST): 15940-16012 AMAR RD. & 15940-16065 KAPLAN AVE.
TRACT / PARCEL MAP NO.: 129; LOT/PARCEL NO.: 2-8
PROPERTY OWNER: HINES
ASSESSORS ID NUMBER(S): 8250-001-012, 013, 014, 015, 016, & 017

ZONING INFORMATION

PROPERTY ZONING: M
INTENDED LAND USE: INDUSTRIAL

GENERAL NOTES

A. SUPERVISION OF CONSTRUCTION SHOWN ON THIS PLAN, INCLUDING GRADES, EARTHWORK OPERATION, PAVING AND DRAINAGE FACILITIES, WILL BE PERFORMED BY GENERAL CONTRACTOR - TBD.

B. A REPORT OF SOILS INVESTIGATION, INCLUDING RECOMMENDATIONS FOR GRADING PROCEDURES BASED ON THE REQUIREMENTS OF CHAPTER 70, LOS ANGELES COUNTY BUILDING CODE (LATEST EDITION), AND PAVEMENT AND BASE THICKNESS, HAS BEEN PREPARED BY THE FOLLOWING SOILS ENGINEER: EARTHWORK AND PAVING SHALL CONFORM TO THE RECOMMENDATIONS CONTAINED IN THE REPORT.

C. THE SOILS ENGINEER SHALL OBSERVE, INSPECT AND TEST ALL EARTHWORK OPERATIONS INCLUDING, BUT NOT LIMITED TO, CLEARING AND GRUBBING, SUBGRADE PREPARATION, STRUCTURAL AND TRENCH EXCAVATION AND BACKFILL, AND PLACEMENT AND COMPACTION OF FILL.

D. AFTER COMPLETION OF THE GRADING OPERATION, AND PRIOR TO A REQUEST FOR FINAL INSPECTION, THE SOILS ENGINEER SHALL SUBMIT TO THE UNDERSIGNED REGISTERED CIVIL ENGINEER A COPY OF DENSITY REPORTS, TOGETHER WITH HIS WRITTEN VERIFICATION THAT THE COMPLETED WORK CONFORMS TO THE INTENT OF THE PLANS, SPECIFICATION AND SOILS REPORT RECOMMENDATIONS.

E. PERMANENT CUT OR FILL SLOPES SHALL NOT EXCEED A SLOPE OF TWO HORIZONTAL TO ONE VERTICAL.

F. ALL FILL SLOPE FACES SHALL BE COMPACTED. IF THE SLOPE IS TO BE LANDSCAPED, THE SURFACE SIX INCHES MAY BE LEFT UNCOMPACTED FOR PLANTING.

G. CONTRACTOR SHALL PROVIDE PROTECTIVE MEASURES AND TEMPORARY DRAINAGE AND DESILTING FACILITIES TO PROTECT ADJOINING PROPERTIES FROM STORM WATERS ORIGINATING ON OR DIVERTED FROM THE CONSTRUCTION SITE.

H. GRADE SHEETS FOR ALL CONCRETE CURB AND GUTTERS, CURBS, "V" GUTTERS, SLABS, STORM DRAINS AND SEWERS SHALL BE PREPARED BY THE UNDERSIGNED ENGINEER. COPIES OF THE GRADE SHEETS SHALL BE MAILTAINED AT THE JOB SITE FOR THE CITY ENGINEER'S REVIEW.

I. GRADE STAKES SHALL BE SET AT 12.5' INTERVALS FOR ALL "V" GUTTERS, CURB AND GUTTER, AND DRAINAGE SYSTEMS WITH FLOW LINE SLOPES OF LESS THAN 0.4%. CONTRACTOR SHALL PROVIDE GRADE SHEETS TO CITY ENGINEER'S OFFICE FOR ACCEPTANCE 48 HOURS PRIOR TO POURING CONCRETE.

J. EXISTING CONTOURS AND OTHER EXISTING TOPOGRAPHIC FEATURES ARE A TRUE REPRESENTATION OF SITE CONDITIONS ON JUNE 27, 2022 PROVIDED BY ROSELL SURVEYING & MAPPING. INC.

K. THE CONTRACTOR SHALL KEEP ALL ADJACENT STREETS AND HAUL ROUTES CLEAR OF DIRT AND DEBRIS ORIGINATING FROM THE CONSTRUCTION SITE OR RESULTING FROM THE PROJECT WORK.

L. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING LOW LEVELS DF NOISE AND DUST.

M. THE CONTRACTOR SHALL SECURE ALL NECESSARY EXCAVATION AND CONSTRUCTION PERMITS FROM THE CITY OF INDUSTRY FOR ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY AND ASSOCIATED EASEMENTS.

N. RETAINING WALLS REQUIRE A SEPARATE BUILDING PERMIT.

O. HANDICAPPED FACILITIES REQUIRE SEPARATE APPROVAL FROM BUILDING AND SAFETY.

P. A SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR IMPLEMENTATION OF BEST MANAGEMENT PRACTICES, TEMPORARY DRAINAGE AND EROSION CONTROL MEASURES AND INVENTORY OF POTENTIAL POLLUTANTS SHALL BE SUBMITTED TO THE CALIFORNIA STATE WATER CONTROL BOARD ALONG WITH THE FILING OF A NOTICE OF INTENT (NOI). BOTH COPIES OF THE SWPPP AND NOI MUST BE MAINTAINED AT THE SITE AT ALL TIMES FOR REVIEW BY STATE AND LOCAL INSPECTORS.

Q. ANY MODIFICATIONS OF OR CHANGES TO THIS PLAN MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO THE INSTITUTION OF SAID MODIFICATION OR CHANGE.

R. THE UNDERSIGNED REGISTERED CIVIL ENGINEER CERTIFIES THAT HIS PLAN WAS PREPARED UNDER HIS SUPERVISION AND THAT THE PLAN DOES COMPLY WITH CITY OF INDUSTRY ORDINANCES. HE WILL, UPON COMPLETION OF THE PROJECT AND PRIOR TO REQUEST FOR FINAL ACCEPTANCE, SUBMIT TO THE CITY ENGINEER WRITTEN VERIFICATION THAT THE COMPLETED WORK DOES CONFORM TO THIS PLAN. FURTHERMORE, AS THE ENGINEER OF RECORD, HE HAS SELECTED APPROPRIATE BMPS TO EFFECTIVELY MINIMIZE THE NEGATIVE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORM WATER QUALITY. THE PROJECT OWNER AND CONTRACTOR ARE AWARE THAT THE SELECTED BMPS MUST BE INSTALLED, MONITORED, AND MAINTAINED TO ENSURE THEIR EFFECTIVENESS. THE BMPS NOT SELECTED FOR IMPLEMENTATION ARE REDUNDANT OR DEEMED NOT APPLICABLE TO THE PROPOSED CONSTRUCTION ACTIVITIES.

____
SIGNATURE DATE

____
PRINTED NAME RCE EXPIRATION

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

THE EXISTENCE AND APPROXIMATE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE DETERMINED BY A SEARCH OF THE AVAILABLE PUBLIC RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UNDERGROUND UTILITIES OR STRUCTURES EXCEPT AS SHOWN ON THESE PLANS.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

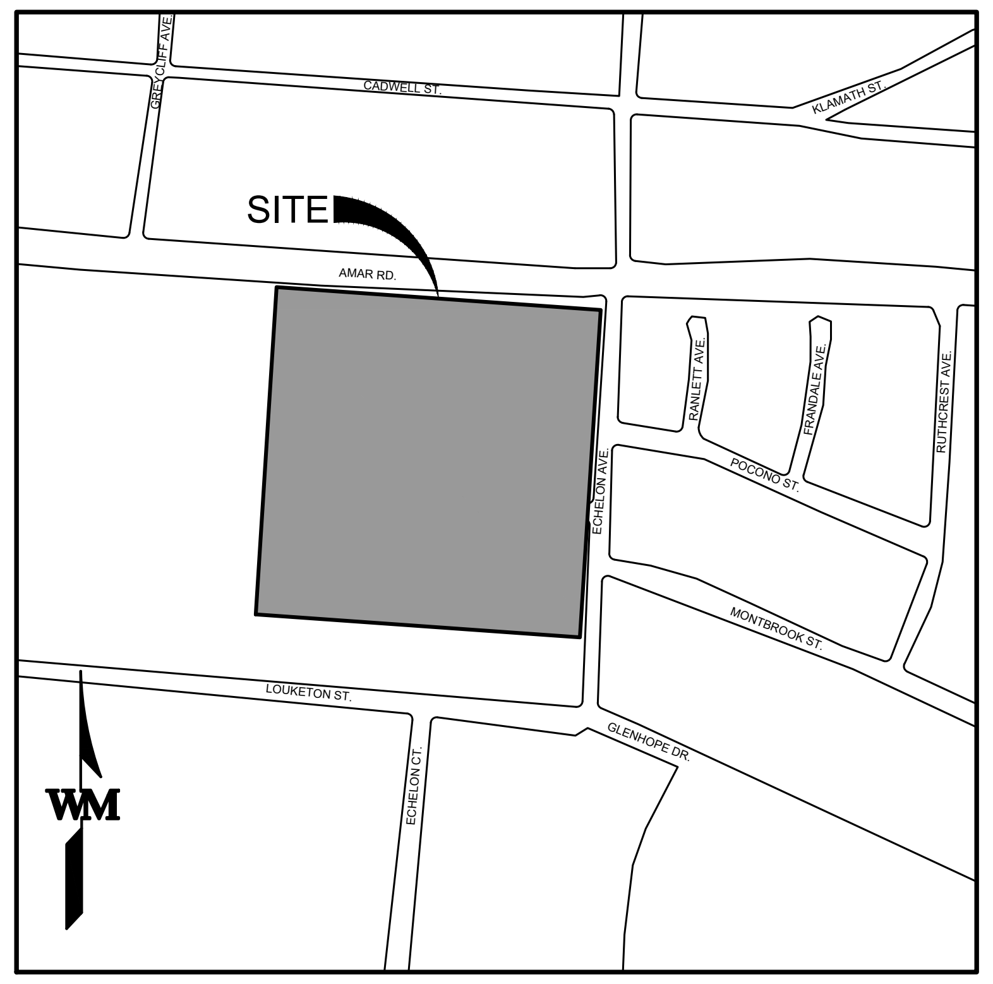
ESTIMATED PROJECT START DATE: ___________________

ESTIMATED COMPLETION DATE: ___________________

W:\IRV\22\0084\00\Civil\CAD\Sheets\Preliminary\IRV22-0084_Title Sheet.dwg 11/16/2022 ACASTELO 1:1

SHEET INDEX

Sheet Number	Sheet Title
1	Title Sheet
2	Preliminary Grading
3	Preliminary Grading
4	Preliminary Grading
5	Preliminary Grading
6	Preliminary Sections
7	Preliminary Utility Plan
8	Preliminary LID Plan
9	Preliminary LID Details
10	Preliminary LID Details



VICINITY MAP
SCALE: N.T.S.

ABBREVIATIONS

AB	AGGREGATE BASE	INV	INVERT
AC	ASPHALT CONCRETE	LF	LINEAR FEET
BFV	BACK FLOW VALVE	ME	MATCH EXISTING
CF	CURB FACE	MH	MAHNOLE
CL/℄	CENTERLINE	NG	NATURAL GROUND
CO	CLEANOUT	OC	ON CENTER
DF	DEEPENED FOOTING	PB	PULL BOX
DIP	DUCTILE IRON PIPE	PCC	PORTLAND CEMENT CONCRETE
EG	EXISTING GRADE	PL/⅊	PROPERTY LINE
EL	ELEVATION	PVC	POLYVINYL CHLORIDE PIPE
EOA	EDGE OF ASPHALT	R	RADIUS
ESMT	EASEMENT	(RAD)	RADIAL BEARING
EX	EXISTING	RCP	REINFORCED CONCRETE PIPE
FDC	FIRE DEPARTMENT CONNECTION	R/W /ROW	RIGHT OF WAY
FES	FLARED END SECTION	SD/STRM	STORM DRAIN
FG	FINISHED GRADE	STA	STATION
FH	FIRE HYDRANT	SS/SAN	SANITARY SEWER
FF/FFE	FINISH FLOOR ELEVATION	TG	TOP OF GRATE
FG	FINISHED GRADE	SW	SIDE WALK
FGW	FINISH GRADE AT WALL	TBC	TOP BACK OF CURB
FL/℄	FLOW LINE	TFI	TOP FACE OF INLET
FS	FINISHED SURFACE	TC	TOP OF CURB
GB	GRADE BREAK	TOP	TOP OF PIPE
GBW	GRADE AT BOTTOM OF WALL	TOW	TOP OF WALL
GTW	GRADE AT TOP OF WALL	TYP.	TYPICAL
GM	GAS METER	VIF	VERIFY IN FIELD
GV	GAS VALVE	WM	WATER METER
HP	HIGH POINT	WSEL	WATER SURFACE ELEVATION
LP	LOW POINT	WV	WATER VALVE

LEGEND

EXISTING		**PROPOSED**
— — — —	BOUNDARY LINE	— — — —
- - - - - - - -	EASEMENT	- - - - - - - -
—— — ——	CENTERLINE	—— — ——
	CURB & GUTTER	
✱ ✱ ✱	TREE (VARIOUS)	✱ ✱ ✱
(5280)	CONTOUR	5750
CATV	CATV	CATV
E E	ELECTRIC	E E
OH	OVERHEAD UTILITY	OH
FO	FIBER OPTIC	FO FO
IRR	IRRIGATION	IRR
NGAS	NATURAL GAS	NGAS
SS	SANITARY	SS
	STORM DRAIN	SD
T T	TELEPHONE	T T
UKWN	UNKNOWN UTIL	N/A
WM	WATER LINE	WM
DW	DOMESTIC WATER	DW
FW	FIRE WATER	FW
RW	RECLAIMED WATER	RW

LEGAL DESCRIPTION

ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL A:
PARCELS 2 TO 8 INCLUSIVE OF PARCEL MAP NO. 129, IN THE CITY OF CITY OF INDUSTRY, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON THE MAP FILED IN BOOK 107 PAGES 45 AND 46 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

A METES AND BOUNDS DESCRIPTION OF SAID PARCEL A IS AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHERLY LINE OF AMAR ROAD AS SHOWN ON SAID PARCEL MAP, SAID POINT ALSO BEING THE NORTHWEST CORNER OF PARCEL 2 OF SAID PARCEL MAP; THENCE SOUTH 85° 39' 38" EAST ALONG THE NORTHERLY LINE OF PARCEL 2 AND PARCEL 3 OF SAID PARCEL MAP A DISTANCE OF 398.26 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 2050.00 FEET; THENCE NORTHEASTERLY 173.29 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 4° 50' 36"; THENCE NORTH 89° 29' 46" EAST CONTINUING ALONG THE NORTHERLY LINE OF SAID PARCEL 3 A DISTANCE OF 82.99 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 27.00 FEET; THENCE SOUTHEASTERLY, 44.62 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 94° 40' 41" TO THE WESTERLY LINE OF ECHELSON AVENUE AS SHOWN ON SAID PARCEL MAP; THENCE SOUTH 4° 10' 27" WEST ALONG SAID WESTERLY LINE ALSO BEING THE EASTERLY LINE OF SAID PARCEL 3 A DISTANCE OF 378.38 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 29.00 FEET; THENCE SOUTHWESTERLY 45.63 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 90° 09' 10" TO THE NORTHERLY LINE OF KAPLAN AVENUE (42' WIDE) ALSO BEING THE SOUTHERLY LINE OF SAID PARCEL 3; THENCE NORTH 85° 40' 23" WEST ALONG THE SOUTHERLY LINE OF SAID PARCELS 3, 4 AND 5 A DISTANCE OF 526.72 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 60.00 FEET; THENCE NORTHWESTERLY 37.60 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGEL OF 35° 54' 14" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 40.00 FEET, A RADIAL LINE THROUGH SAID BEGINNING OF A REVERSE CURVE BEARS NORTH 40° 13' 51" EAST; THENCE WESTERLY, SOUTHWESTERLY AND EASTERLY 175.79 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 251° 48' 28" TO THE BEGINNING OF A REVERSE CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 60.00 FEET; A RADIAL LINE THROUGH SAID BEGINNING OF A REVERSE CURVE BEARS NORTH 31° 34' 37" WEST; THENCE NORTHEASTERLY 37.60 FEET ALONG SAID CURVE TO THE SOUTHERLY LINE OF SAID KAPLAN AVENUE, ALSO BEING THE NORTHERLY LINE OF SAID PARCELS 6, 7 AND 8 AND A DISTANCE OF 526.98 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 29.00 FEET; THENCE SOUTHEASTERLY 45.20 FEET ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 89° 18' 13" TO THE MOST EASTERLY CORNER OF SAID PARCEL 8, A RADIAL LINE THROUGH SAID CORNER BEARS NORTH 86° 22' 10" WEST; THENCE NORTH 85° 39' 28" WEST A DISTANCE OF 122.93 FEET TO AN ANGLE POINT; THENCE SOUTH 4° 20' 32" WEST A DISTANCE OF 182.50 FEET TO THE MOST SOUTHERLY SOUTHEAST CORNER OF SAID PARCEL 8, ALSO BEING THE NORTHERLY LINE OF PUENTE CREEK AS SHOWN ON SAID PARCEL MAP THENCE NORTH 85° 39' 28" WEST ALONG THE SOUTHERLY LINE OF SAID PARCELS 8, 7 AND 6 A DISTANCE OF 561.76 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL 6; THENCE NORTH 4° 20' 22" EAST ALONG THE WESTERLY LINE OF SAID PARCEL 6, 5 AND 2 A DISTANCE OF 673.07 FEET TO THE POINT OF BEGINNING SUBJECT TO ALL LEGAL HIGHWAYS AND EASEMENTS OF RECORD.

PARCEL B:

NON-EXCLUSIVE EASEMENTS FOR INGRESS AND EGRESS, PURSUANT TO THAT CERTAIN RECIPROCAL GRANT OF EASEMENTS FOR INGRESS AND EGRESS RECORDED APRIL 1, 1987 AS INSTRUMENT NO. 87-501049 OF OFFICIAL RECORDS, OVER THE SOUTHERLY MOST 25 FEET OF THE NORTHERLY MOST 50 FEET OF PARCEL 1 OF PARCEL MAP NO. 129, IN THE CITY OF INDUSTRY, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON THE MAP FILED IN BOOK 107, PAGES 45 AND 46 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN: 8250-001-011, APN: 8250-001-012, APN: 8250-001-013, APN: 8250-001-014, APN: 8250-001-015, APN: 8250-001-016, APN: 8250-001-017

PROJECT BENCHMARK

CITY OF INDUSTRY BENCHMARK: LK-6
DATUM: NGVD-29
YEAR LEVELED: 2007
ELEVATION: 348.833'

BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 6, (2017.75) IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8801-8819.

SURVEY INFORMATION

THESE PLANS AND THE ABOVE INFORMATION ARE BASED ON THE SURVEY BY JEFFREY S. FARLESS, CA PLS 9115 OF ROSELL SURVEYING & MAPPING, INC. FOR AND ON BEHALF OF WARE MALCOMB, PROVIDED TO WARE MALCOMB ON JUNE 27, 2022.

GEOTECHNICAL INFORMATION

LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC.
GEOTECHNICAL INVESTIGATION REPORT FOR INDUSTRIAL DEVELOPMENT SITE 16008 AMAR ROAD CITY OF INDUSTRY, CALIFORNIA

AGENCY CONTACT LIST

OWNER/DEVELOPER
HINES
444 S. FLOWER ST. STE. 2100
LOS ANGELES, CA 90071
(213) 629-5200
CONTACT: TOM LAWLESS

CIVIL ENGINEER
WARE MALCOMB
10 EDELMAN
IRVINE, CA 92618
(949) 660-9128
CONTACT: LUKE CORSBIE

ARCHITECT
WARE MALCOMB
10 EDELMAN
IRVINE, CA 92618
(949) 788-4093

CITY OF INDUSTRY
15625 MAYOR DAVE WAY
INDUSTRY, CA 91744
(626) 333-2211

WATER
SUBURBAN WATER SYSTEMS
1325 N. GRAND AVENUE, SUITE 100
COVINA, CA 91724
(626) 543-2640

SEWER
LA COUNTY CONSOLIDATED SEWER MAINTENANCE DISTRICT
P.O. BOX 1475
ALHAMBRA, CA 91802-1475
(626) 300-3399

ELECTRIC
INDUSTRY PUBLIC UTILITIES
15625 MAYOR DAVE WAY
INDUSTRY, CA 91744
(926) 333-2211

PRELIMINARY EARTHWORK QUANTITIES

	EXCAVATION (CY)	EMBANKMENT (CY)
GENERAL:	20,000±	21,500±
OVEREX & RECOMPACTION:	22,000±	22,000±
SHRINKAGE FACTOR (ASSUMED):	-	1.10
GROSS	42,000±	48,000±
NET [IMPORT]	-	6,000±

NOTE: GRADING QUANTITIES SHOWN ARE FOR BONDING PURPOSES ONLY AND REPRESENT BANK YARDAGE. WARE MALCOMB DOES NOT GURANTEE THE ACCURACY OF THE ESTIMATED QUANTITIES. THE CONTRACTOR SHOULD PERFORM THEIR OWN QUANTITY TAKEOFF BEFORE SUBMITTING A BID FOR ANY PORTION OF THE IMPROVEMENTS. QUANTITIES DO NOT INCLUDE TRENCHING OR STRUCTURAL FOUNDATIONS.

WARE MALCOMB
LEADING DESIGN FOR COMMERCIAL REAL ESTATE

10 edelman
irvine, ca 92618
p 949.660.9128
waremalcomb.com

LUCAS A. CORSBIE
No. 72588
11/16/2022

FOR AND ON BEHALF OF WARE MALCOMB

HINES INDUSTRY HILLS
PRELMINARY GRADING PLAN
15940-16012 AMAR RD. & 15940-16065
KAPLAN AVE., CITY OF INDUSTRY, CA. 91744

TITLE SHEET

NO.	DATE	REMARKS

JOB NO.:	IRV22-0084
PA / PM:	L. CORSBIE
DESIGNED:	B. SUNDHEIMER
DATE:	11/16/22
PLOT DATE:	11/16/22

SHEET
1
Sheet 1 of 10

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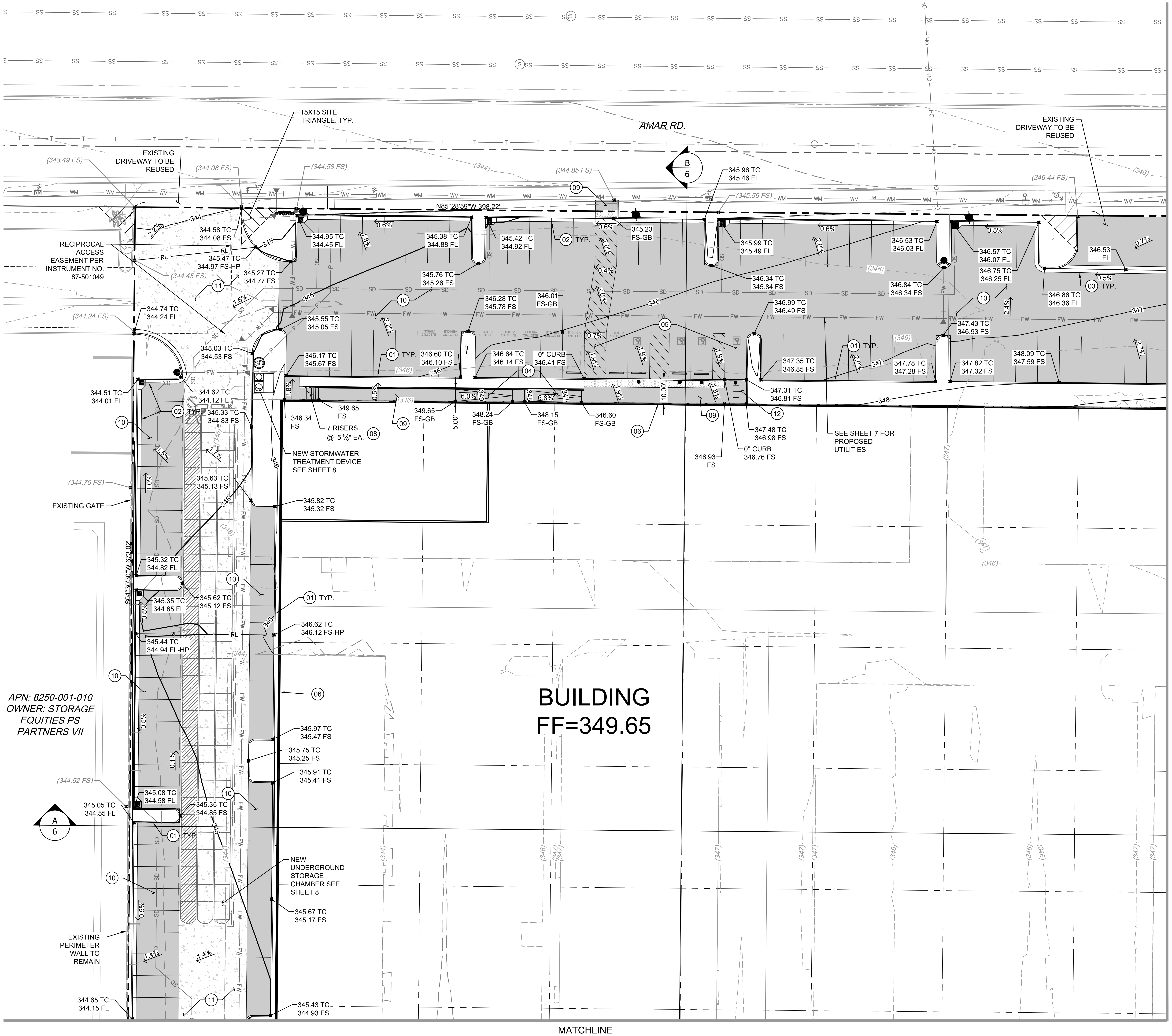
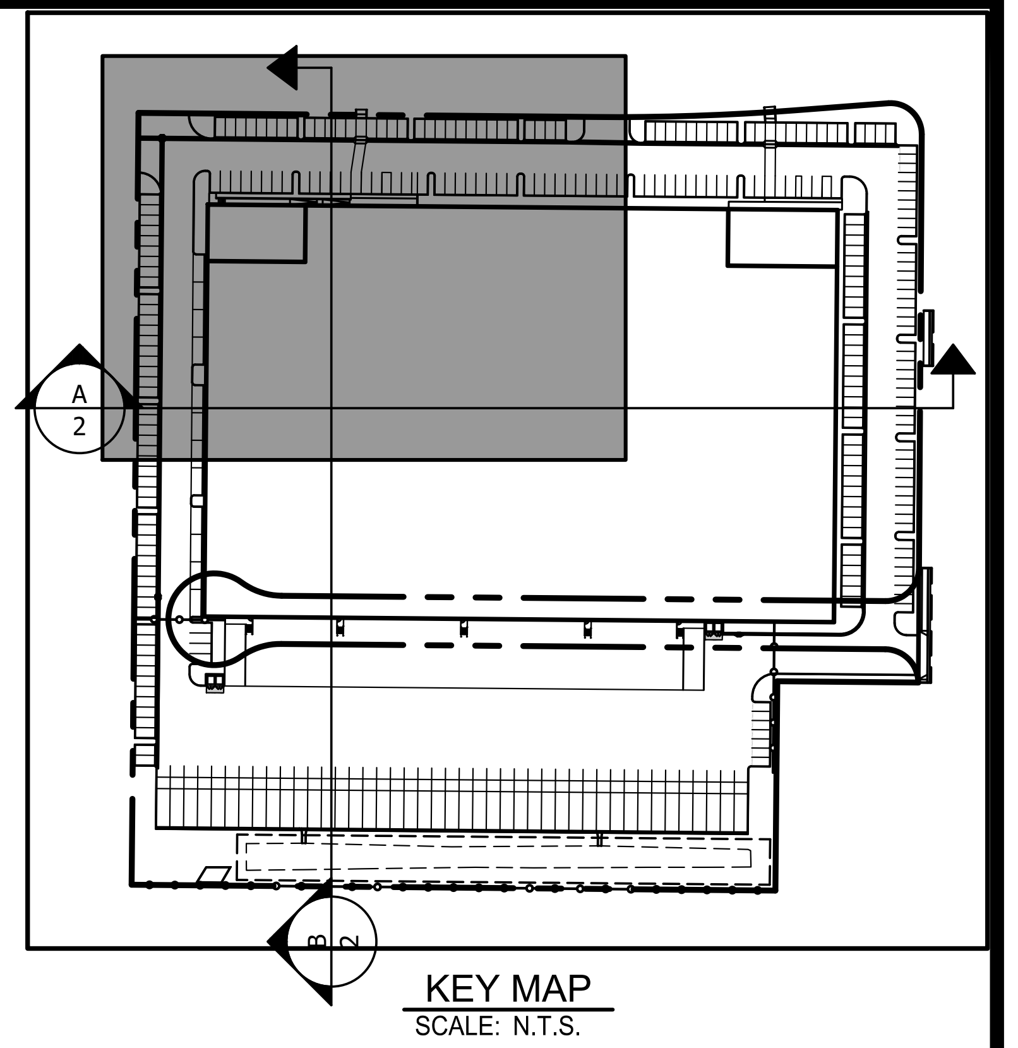


MATCHLINE
SEE SHEET 4



KEY MAP
SCALE: N.T.S.

LEGEND

EXISTING		PROPOSED
	BOUNDARY	
	EASEMENT	
	CENTERLINE	
(5280)	MAJOR CONTOUR	5280
(5278)	MINOR CONTOUR	5278
	CURB / GUTTER	
	BUILDING	
	SIDEWALK	
	CURB RAMPS	
	TREES	
SD	STORM DRAIN	SD
OH	OVERHEAD UTILITY	OH
	UTILITY POLE	
	DOWN GUY	
☼	LIGHT POLE	✹

GRADING NOTES

1. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH THE ELEVATIONS SHOWN ON THE PLANS. ENGINEER WILL NOT BE LIABLE FOR ANY COSTS ASSOCIATED WITH CHANGES TO THE DESIGN WITHOUT PROPER NOTIFICATION.
2. SEE COVER SHEET FOR BENCHMARK, BASIS OF BEARINGS, AND SURVEY INFORMATION.
3. ELEVATIONS ARE PER THE SURVEY DATUM, NOT PER ARCHITECTURAL FLOOR ELEVATIONS.
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9. REFER TO THE GEOTECH REPORT FOR GROUNDWATER ELEVATIONS.
10. GRADING OF LANDSCAPED AREAS AROUND BUILDINGS TO COMPLY WITH GEOTECH. REPORT.
11. PEDESTRIAN GUARDRAILS TO BE INSTALLED WHERE REQUIRED BY LOCAL, STATE, OR FEDERAL REQUIREMENTS. RE: ARCHITECTURAL/LANDSCAPE PLANS.

CONSTRUCTION NOTES

(01) NEW 6" CURB
(02) NEW 6" CURB AND GUTTER
(03) NEW 3' VALLEY GUTTER
(04) NEW ACCESSIBLE RAMP
(05) NEW ACCESSIBLE PARKING
(06) NEW DEEPENED FOOTING
(07) NEW DOWNDRAIN / FLUME
(08) NEW STAIRS
(09) NEW CONCRETE PATIOS AND WALKWAYS
(10) NEW AC PAVING
(11) NEW CONCRETE PAVING
(12) NEW BIKE RACK

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0 10 20 40
SCALE: 1" = 20'

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WARE MALCOMB
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p 949.660.9128
waremalcomb.com

LUCAS A. CORSBIE
No. 72588
Lucas Corsbie
11/16/2022
FOR AND ON BEHALF OF WARE MALCOMB

HINES INDUSTRY HILLS
PRELMINARY GRADING PLAN
15940-16012 AMAR RD. & 15940-16065
KAPLAN AVE., CITY OF INDUSTRY, CA. 91744

PRELIMINARY GRADING

NO.	DATE	REMARKS

JOB NO.:	IRV22-0084
PA / PM:	L. CORSBIE
DESIGNED:	B. SUNDHEIMER
DATE:	11/16/22
PLOT DATE:	11/16/22

SHEET
2
Sheet 2 of 10

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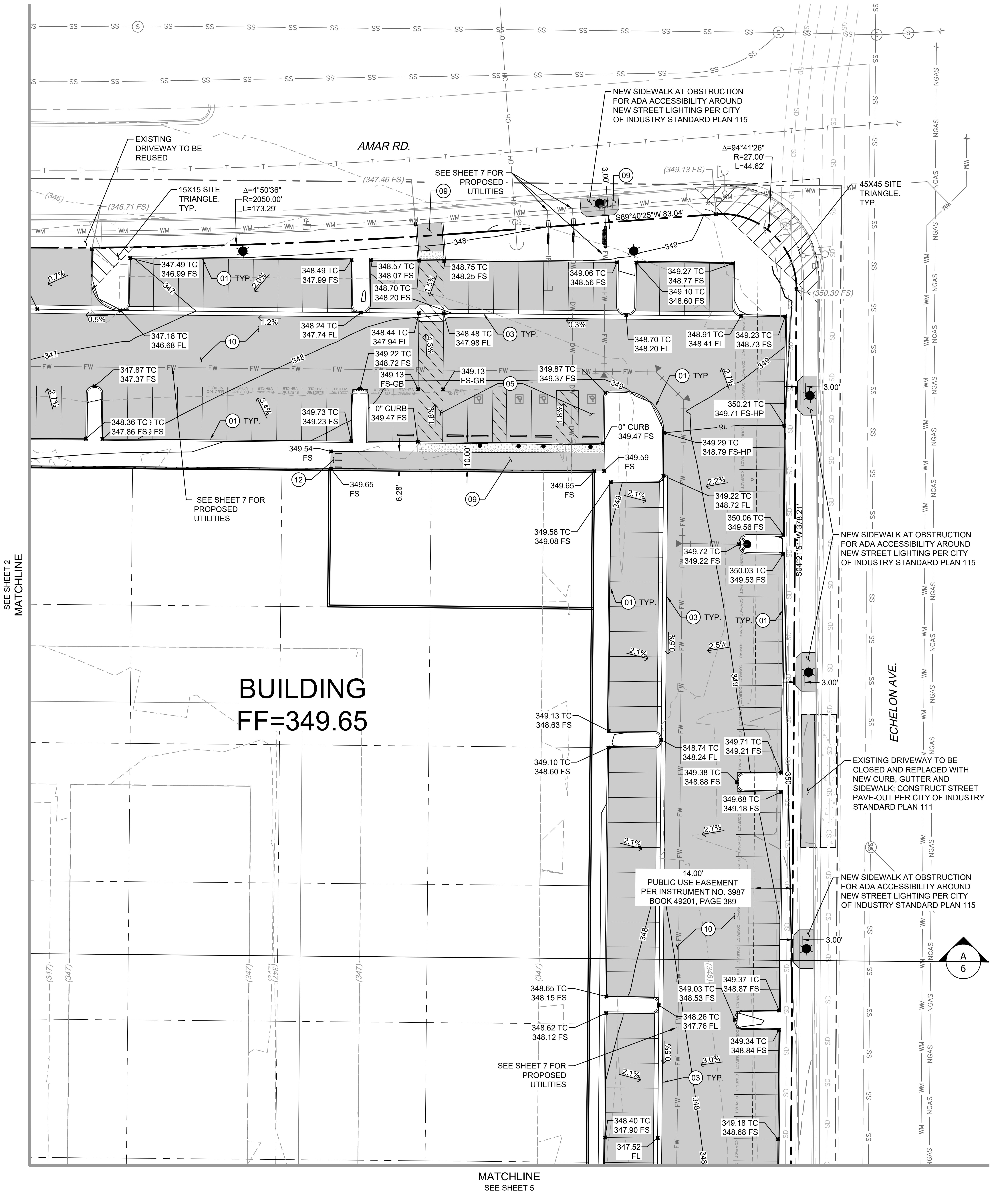

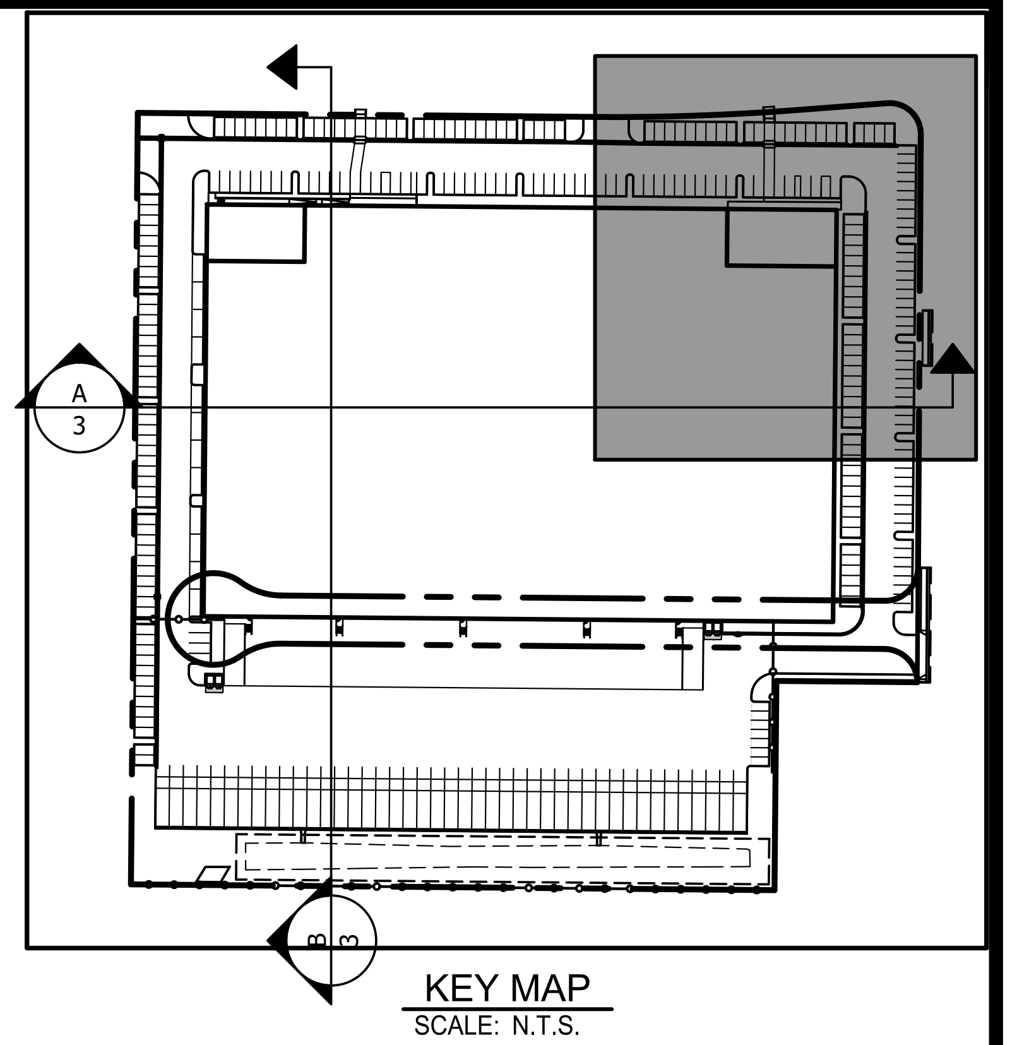

KEY MAP
SCALE: N.T.S.

LEGEND

EXISTING		PROPOSED
	BOUNDARY	
	EASEMENT	
	CENTERLINE	
(5280)	MAJOR CONTOUR	5280
(5278)	MINOR CONTOUR	5278
	CURB / GUTTER	
	BUILDING	
	SIDEWALK	
	CURB RAMPS	
	TREES	
SD	STORM DRAIN	SD
OH	OVERHEAD UTILITY	OH
	UTILITY POLE	
	DOWN GUY	
	LIGHT POLE	

GRADING NOTES

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- (04) NEW ACCESSIBLE RAMP
- (05) NEW ACCESSIBLE PARKING
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- (08) NEW STAIRS
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- (10) NEW AC PAVING
- (11) NEW CONCRETE PAVING
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SCALE: 1" = 20'

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CIVIL
Lucas Corsbie
11/16/2022
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HINES INDUSTRY HILLS
PRELMINARY GRADING PLAN
15940-16012 AMAR RD. & 15940-16065
KAPLAN AVE., CITY OF INDUSTRY, CA. 91744

PRELIMINARY GRADING

NO.	DATE	REMARKS

JOB NO.:	IRV22-0084
PA / PM:	L. CORSBIE
DESIGNED:	B. SUNDHEIMER
DATE:	11/16/22
PLOT DATE:	11/16/22

SHEET
3
Sheet 3 of 10

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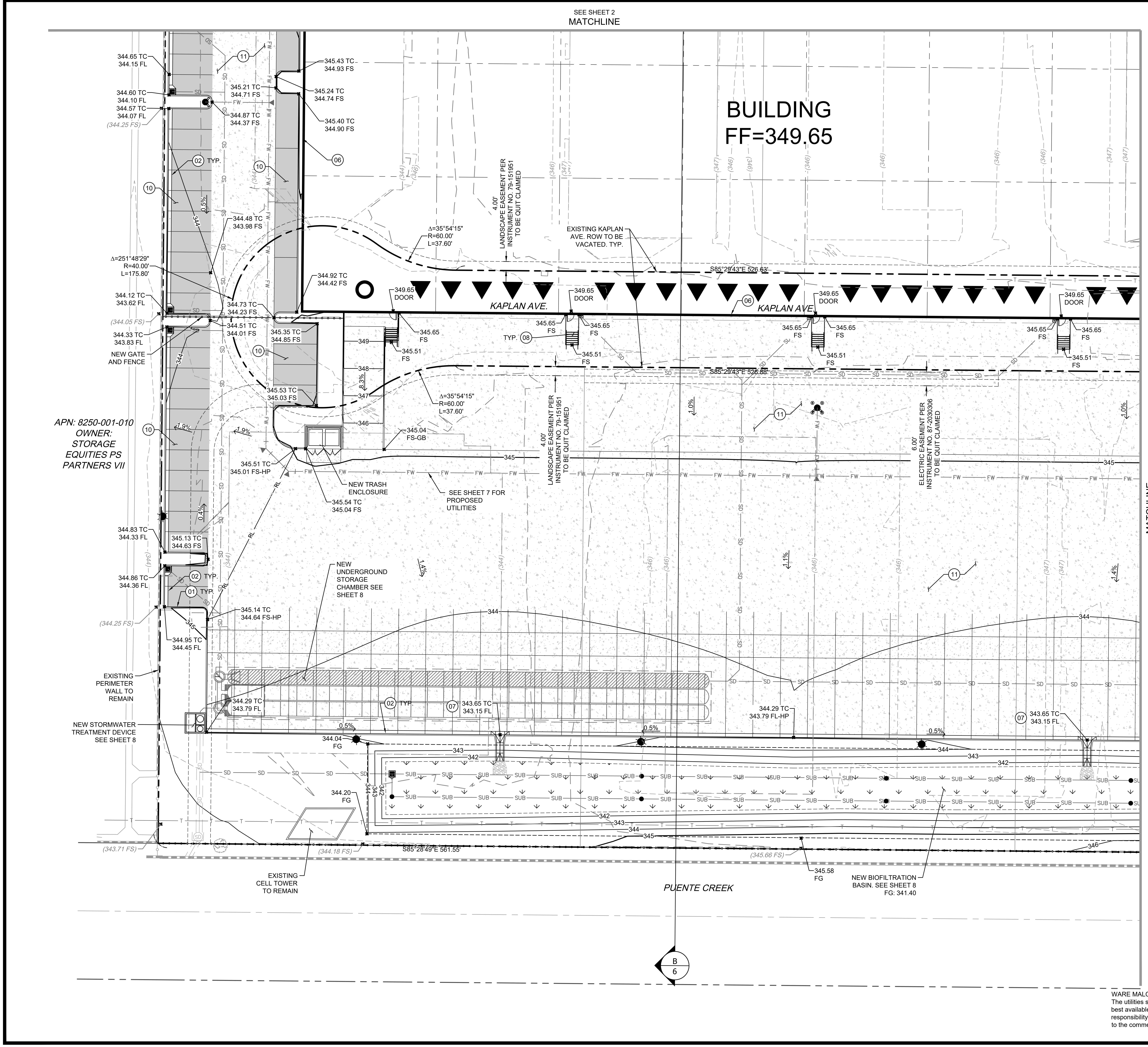

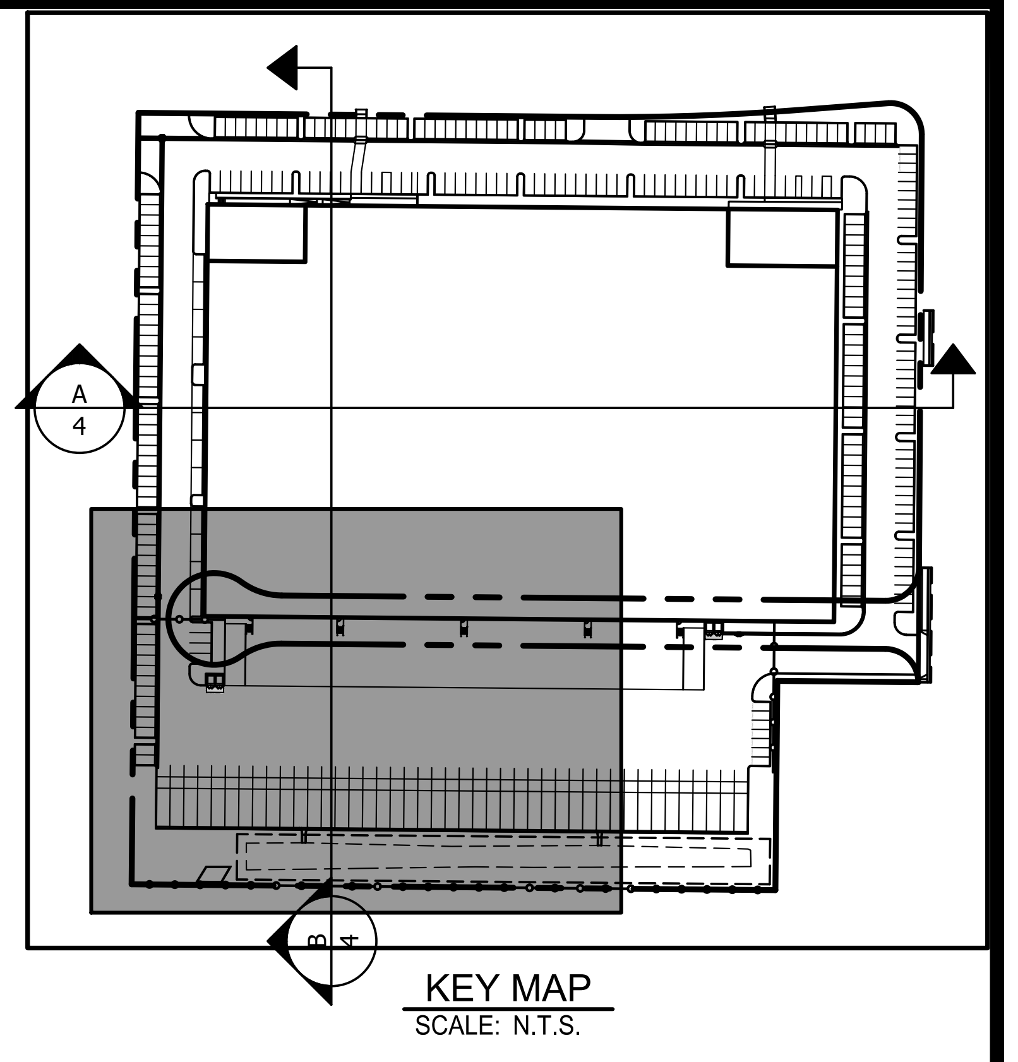

KEY MAP
SCALE: N.T.S.

LEGEND

EXISTING		PROPOSED
— — —	BOUNDARY	— — —
— — —	EASEMENT	— — —
— — —	CENTERLINE	— — —
(5280)	MAJOR CONTOUR	5280
(5278)	MINOR CONTOUR	5278
═	CURB / GUTTER	═
▨	BUILDING	▨
▨	SIDEWALK	▨
⬡ ◻	CURB RAMPS	⬡ ◻
✳ ✳ ✳	TREES	✳ ✳ ✳
SD	STORM DRAIN	SD
OH	OVERHEAD UTILITY	OH
○	UTILITY POLE	●
←	DOWN GUY	←
☼	LIGHT POLE	✹

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CONSTRUCTION NOTES

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(02)	NEW 6" CURB AND GUTTER
(03)	NEW 3' VALLEY GUTTER
(04)	NEW ACCESSIBLE RAMP
(05)	NEW ACCESSIBLE PARKING
(06)	NEW DEEPENED FOOTING
(07)	NEW DOWNDRAIN / FLUME
(08)	NEW STAIRS
(09)	NEW CONCRETE PATIOS AND WALKWAYS
(10)	NEW AC PAVING
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(12)	NEW BIKE RACK

WM

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0 10 20 40
SCALE: 1" = 20'

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LUCAS A. CORSBIE
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CIVIL
Lucas Corsbie
11/16/2022

FOR AND ON BEHALF
OF WARE MALCOMB

HINES INDUSTRY HILLS
PRELIMINARY GRADING PLAN
15940-16012 AMAR RD. & 15940-16065
KAPLAN AVE., CITY OF INDUSTRY, CA. 91744

PRELIMINARY GRADING

NO.	DATE	REMARKS

JOB NO.:	IRV22-0084
PA / PM:	L. CORSBIE
DESIGNED:	B. SUNDHEIMER
DATE:	11/16/22
PLOT DATE:	11/16/22

SHEET
4
Sheet 4 of 10

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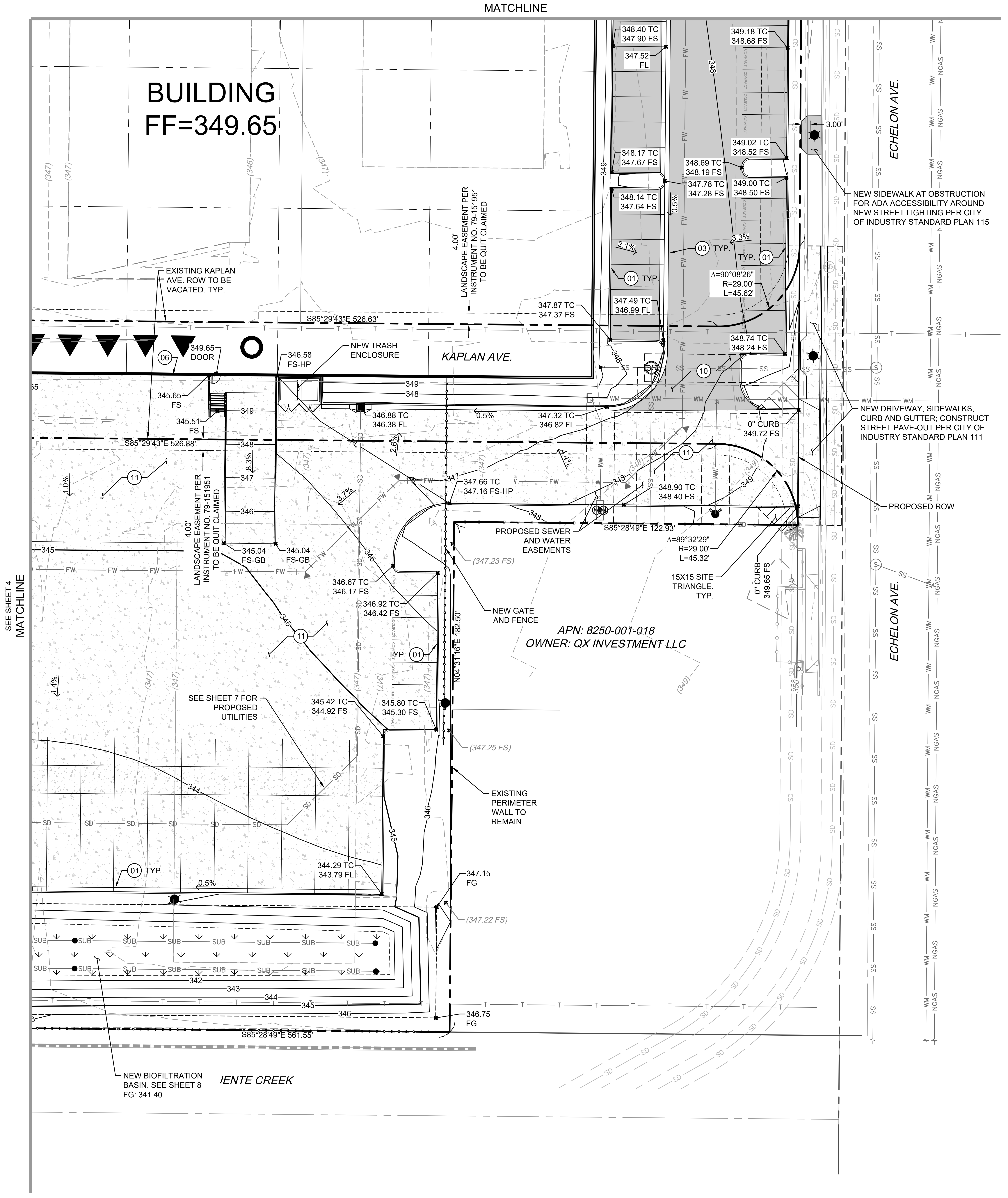

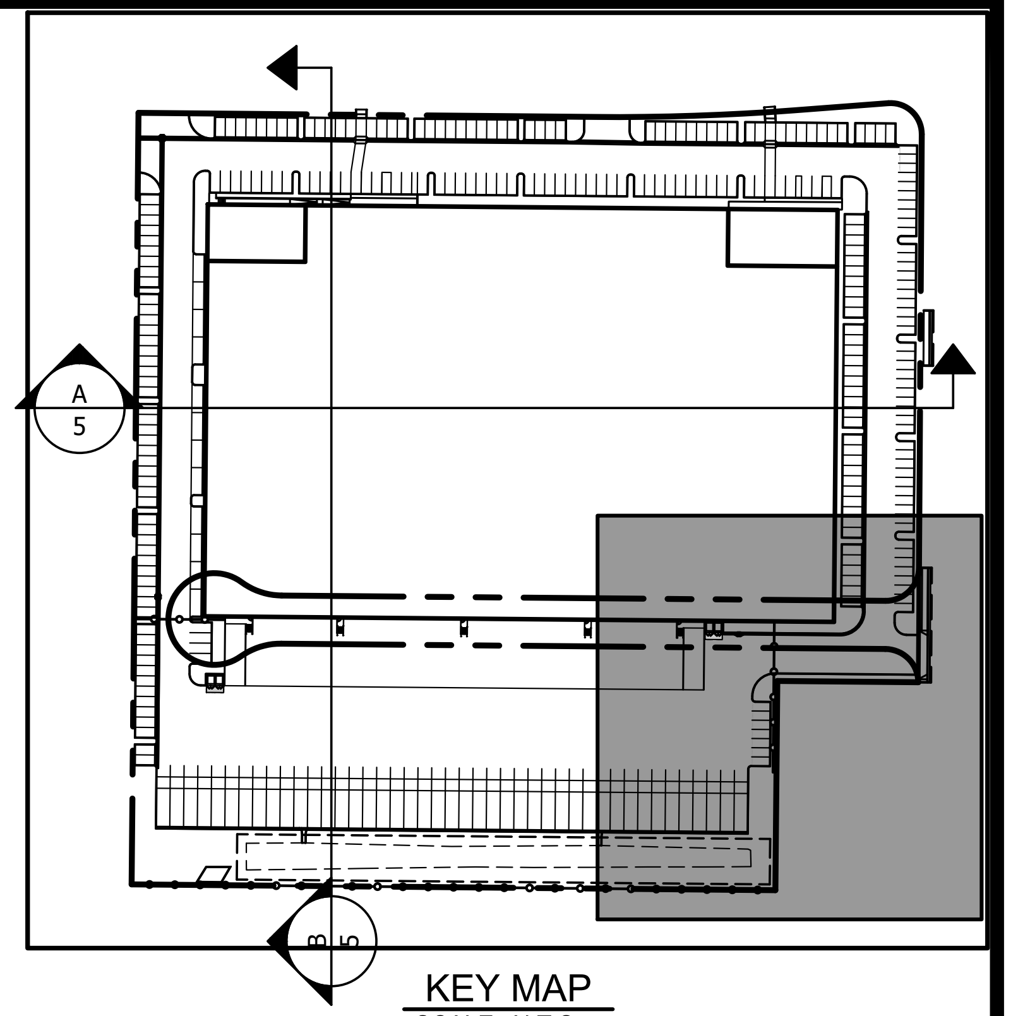

KEY MAP
SCALE: N.T.S.

LEGEND

EXISTING		PROPOSED
	BOUNDARY	
	EASEMENT	
	CENTERLINE	
(5280)	MAJOR CONTOUR	5280
(5278)	MINOR CONTOUR	5278
	CURB / GUTTER	
	BUILDING	
	SIDEWALK	
	CURB RAMPS	
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	UTILITY POLE	
	DOWN GUY	
☼	LIGHT POLE	✸

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CONSTRUCTION NOTES

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- ⓪② NEW 6" CURB AND GUTTER
- ⓪③ NEW 3' VALLEY GUTTER
- ⓪④ NEW ACCESSIBLE RAMP
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- ⓪⑧ NEW STAIRS
- ⓪⑨ NEW CONCRETE PATIOS AND WALKWAYS
- ⑩ NEW AC PAVING
- ⑪ NEW CONCRETE PAVING

0 10 20 40
SCALE: 1" = 20'

WARE MALCOMB
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REGISTERED PROFESSIONAL ENGINEER
LUCAS A. CORSBIE
No. 72588
CIVIL
STATE OF CALIFORNIA
11/16/2022
FOR AND ON BEHALF
OF WARE MALCOMB

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PLOT DATE:	11/16/22

SHEET
5
Sheet 5 of 10

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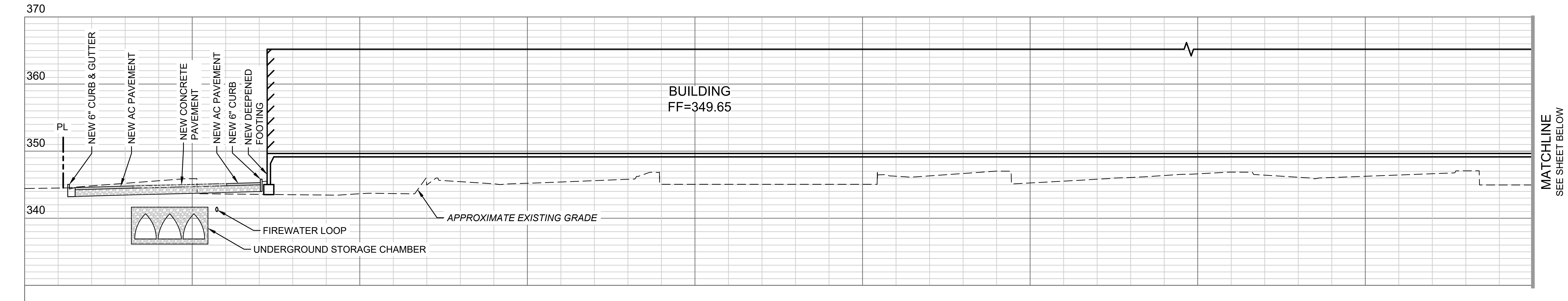
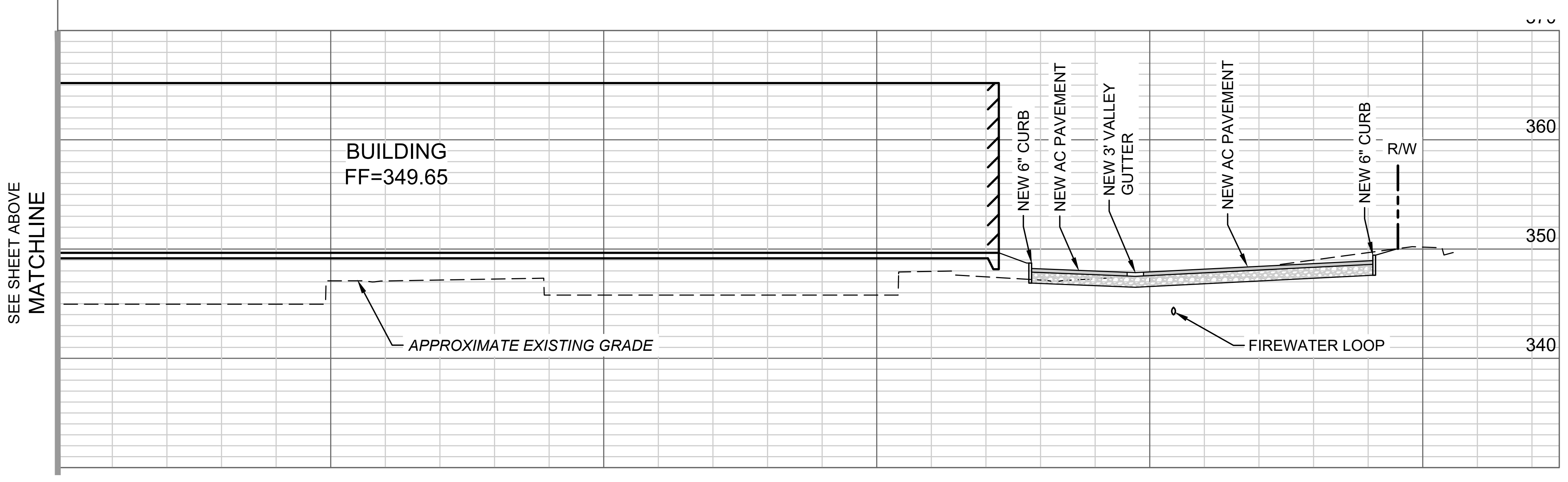
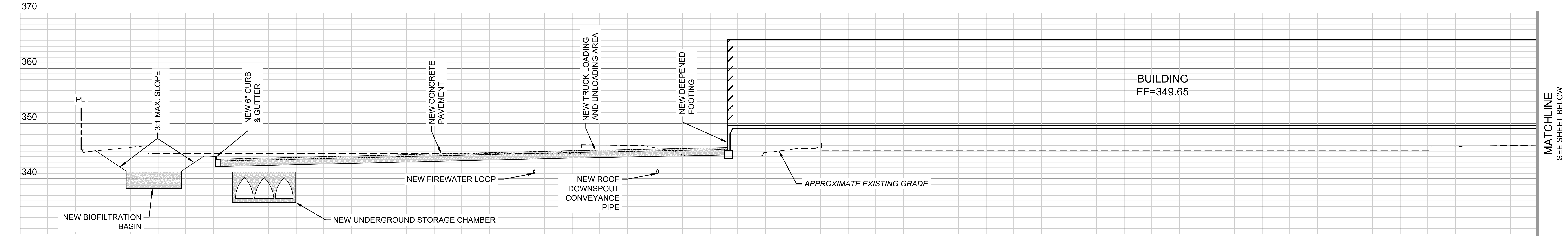


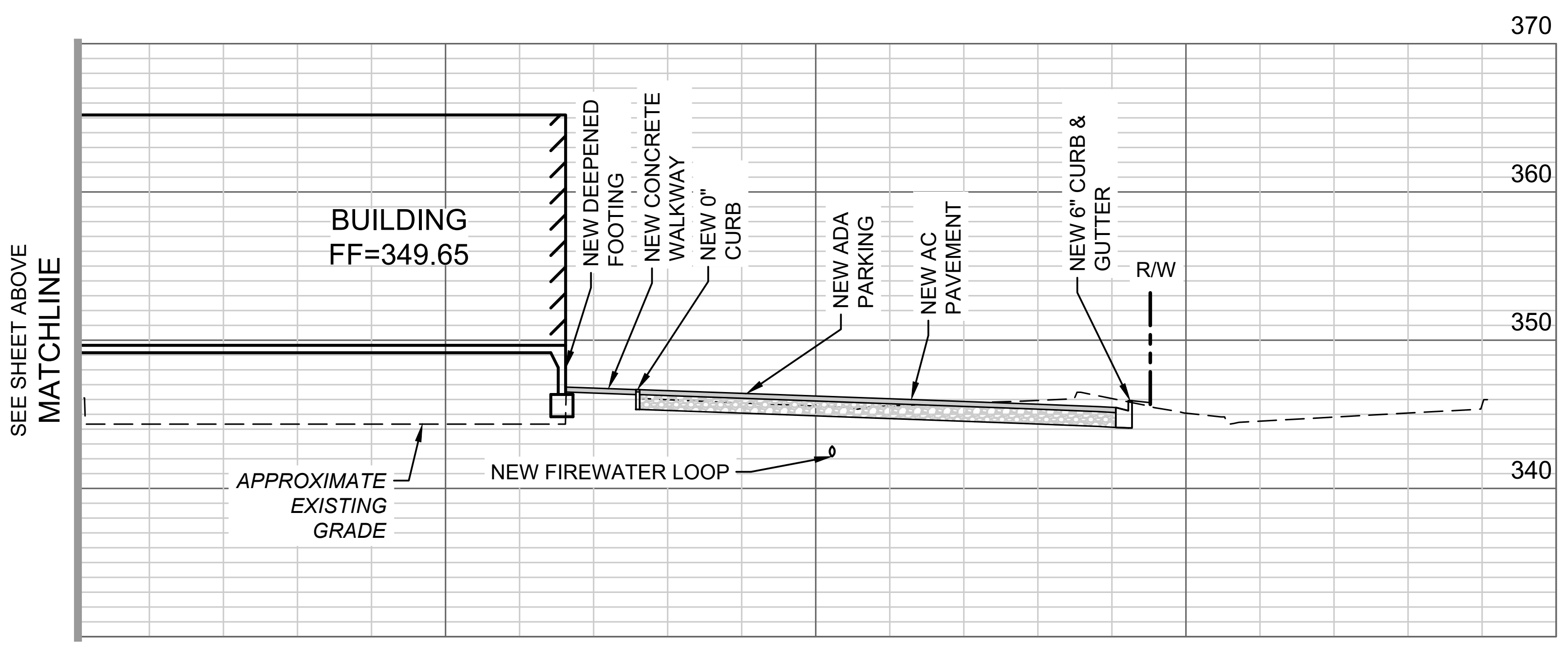
SITE SECTION A



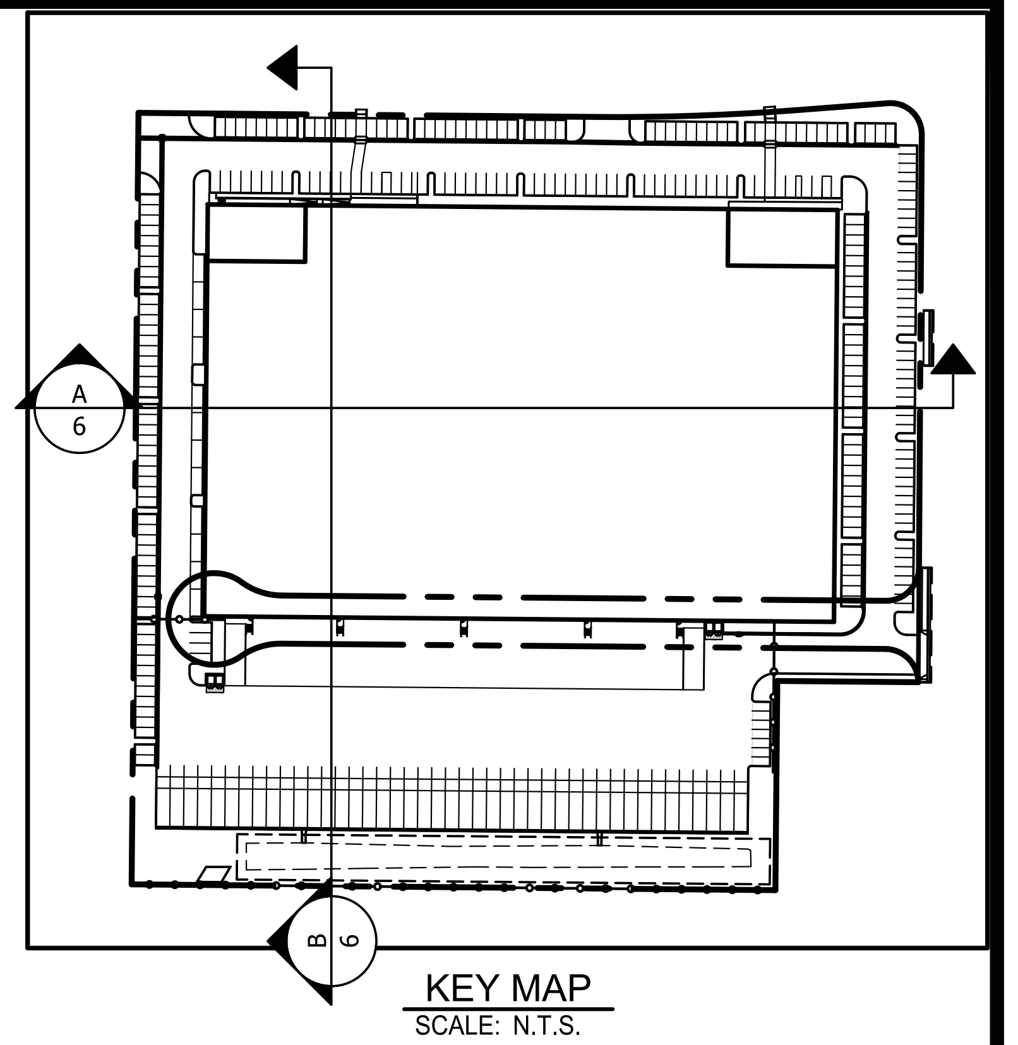
SITE SECTION A (CONTINUED)



SITE SECTION B



SITE SECTION B (CONTINUED)



KEY MAP
SCALE: N.T.S.

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0 10 20 40
SCALE: Hor: 1" = 20'
SCALE: Vert: 1" = 10'

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PRELIMINARY SECTIONS

NO.	DATE	REMARKS

JOB NO.:	IRV22-0084
PA / PM:	L. CORSBIE
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DATE:	11/16/22
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SHEET
6
Sheet 6 of 10

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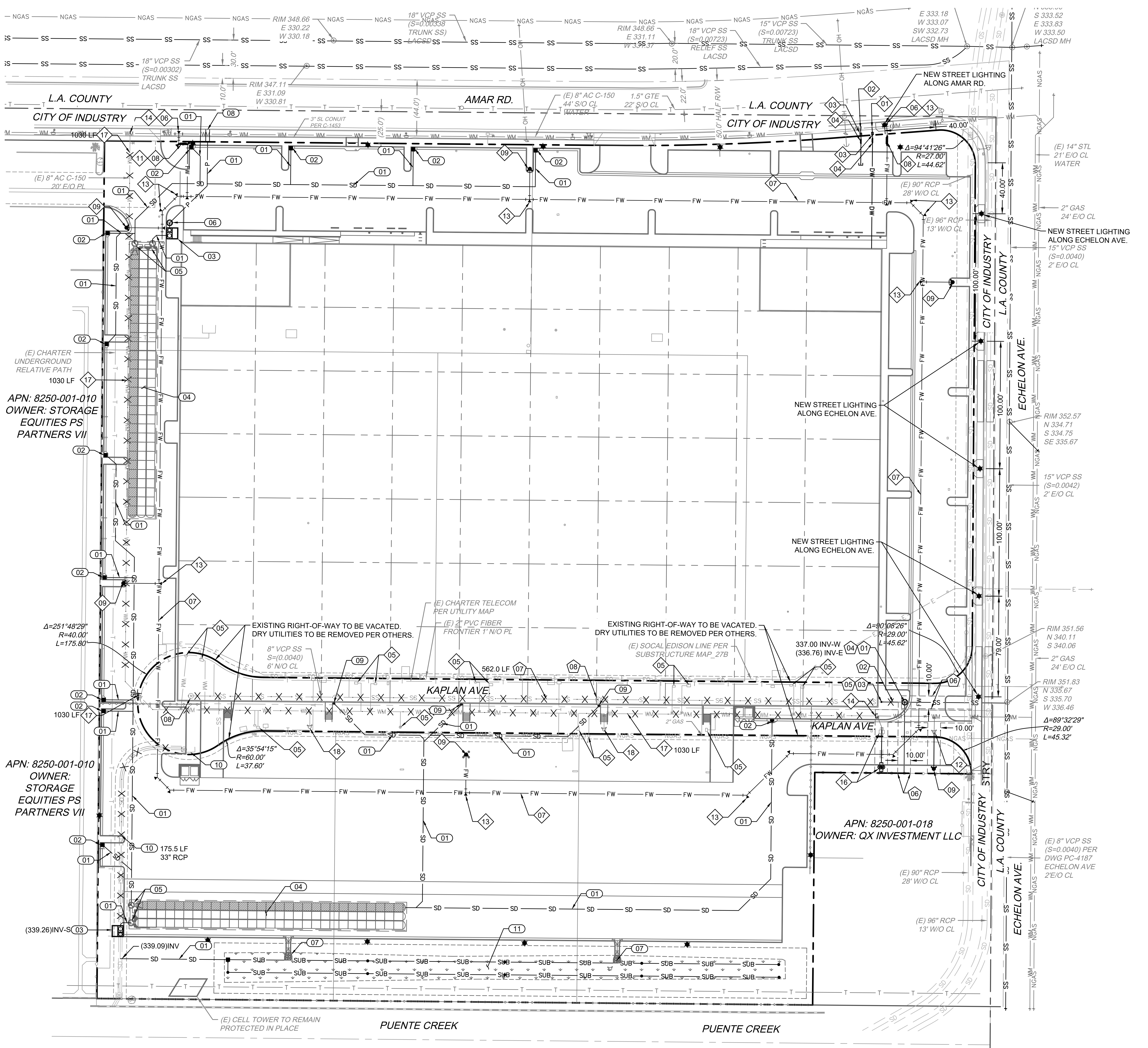

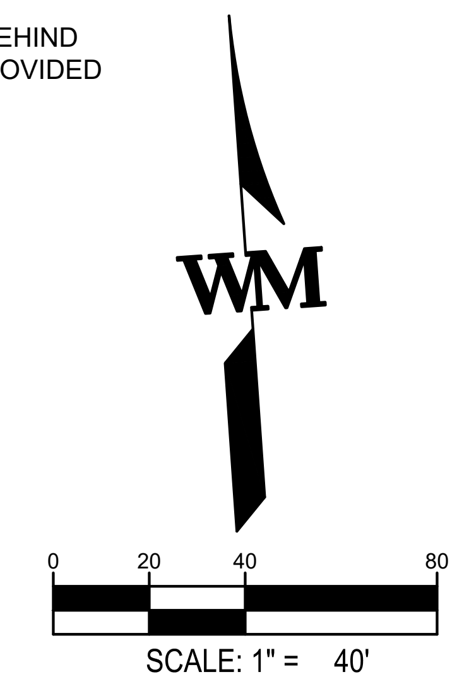

SEWER CONSTRUCTION NOTES

- 01 6" SEWER LATERAL CONNECTION PER LACSD STD. DWG. S-A-86.
- 02 6" SDR-35 PVC SEWER PIPE; S = 0.020 MIN.
- 03 POINT OF CONNECTION 5 FEET OUTSIDE BUILDING FACE. SEE PLUMBING PLANS FOR CONTINUATION.
- 04 INSTALL STANDARD MANHOLE, TYPE "A" PER LACSD STD. DWG. NO. S-A-201.
- 05 SEWER CLEANOUT PER LACSD STD. DWG. NO. S-A-233.
- 06 PROVIDE EASEMENT FOR EXISTING SEWER FACILITIES
- 07 REMOVE EXISTING 8" VCP SEWER MAIN. LIMITS PER PLAN.
- 08 REMOVE EXISTING SEWER MANHOLE.

STORM CONSTRUCTION NOTES

- 01 HDPE STORM DRAIN PIPE. TRENCH AND BEDDING. SIZE PER PLAN.
- 02 CURBSIDE GRATING CATCH BASIN INLET PER SPPWC STD. PLAN 303-3.
- 03 BIOCLEAN MODULAR WETLANDS SYSTEM OR APPROVED EQUAL. SEE LID PLAN FOR DETAILS.
- 04 UNDERGROUND DETENTION GALLERY, BIOCLEAN URBANPOND OR APPROVED EQUAL. SEE LID PLAN FOR DETAILS.
- 05 STORM DRAIN MANHOLE. PROVIDE TRAFFIC RATED COVER.
- 06 SUMP PUMP LIFT STATION FOR OVERFLOW.
- 07 RIP RAP APRON.
- 08 PARKWAY DRAIN PER SPPWC STD. PLAN 151-3.
- 09 POINT OF CONNECTION TO BUILDING DOWNSPOUT.
- 10 REMOVE EXISTING STORM DRAIN STRUCTURE.
- 11 BIOFILTRATION AREA WITH OVERFLOW DEVICE AND 6" PERFORATED UNDER DRAINS SYSTEM.

WATER CONSTRUCTION NOTES

- 01 2" DOMESTIC WATER SERVICE CONNECTION PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 112.
- 02 1" DOMESTIC WATER SERVICE CONNECTION PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 110.
- 03 WATER METER ASSEMBLY PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 113. SIZE PER PLAN.
- 04 REDUCED PRESSURE PRINCIPLE ASSEMBLY PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 216. SIZE PER PLAN.
- 05 REMOVE EXISTING WATER METER AND SERVICE LATERAL TO MAIN.
- 06 8" FIRE WATER SERVICE CONNECTION PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 201.
- 07 8" PVC C900 FIRE WATER MAIN. PIPE TRENCHING & BEDDING PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 100.
- 08 8" DOUBLE CHECK DETECTOR ASSEMBLY PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 215 & 221. WILKINS 350DA OR APPROVED EQUAL.
- 09 FIRE HYDRANT INSTALLATION PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 150.
- 10 FIRE SPRINKLER LATERAL CONNECTION
- 11 FIRE DEPARTMENT CONNECTION.
- 12 RELOCATE EXISTING HYDRANT. EXTEND EXISTING LATERAL AND REUSE VALVE.
- 13 THRUST BLOCK PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 105.
- 14 CUT & PLUG EXISTING WATER MAIN PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 108.
- 15 VALVE INSTALLATION PER SUBURBAN WATER SYSTEMS STD. DWG. NO. 101 & 102.
- 16 RELOCATE EXISTING WATER METERS BEHIND PROPOSED CURB. EASEMENT TO BE PROVIDED AS PART OF STREET VACATION.
- 17 REMOVE EXISTING 8" AC WATER MAIN.
- 18 REMOVE EXISTING HYDRANT.

WARE MALCOMB assumes no responsibility for utility locations. The utilities shown on this drawing have been plotted from the best available information. It is, however, the contractors responsibility to field verify the location of all utilities prior to the commencement of any construction.

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WARE MALCOMB
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waremalcomb.com

REGISTERED PROFESSIONAL ENGINEER
LUCAS A. CORSBIE
No. 72588
CIVIL
STATE OF CALIFORNIA
11/16/2022
FOR AND ON BEHALF OF WARE MALCOMB

HINES INDUSTRY HILLS
PRELIMINARY GRADING PLAN
15940-16012 AMAR RD. & 15940-16065
KAPLAN AVE., CITY OF INDUSTRY, CA. 91744

PRELIMINARY UTILITY PLAN

NO.	DATE	REMARKS

JOB NO.:	IRV22-0084
PA / PM:	L. CORSBIE
DESIGNED:	B. SUNDHEIMER
DATE:	11/16/22
PLOT DATE:	11/16/22

SHEET
7
Sheet 7 of 10

NOT FOR CONSTRUCTION

W:\IRV22\0084\00\Civil\CAD\Sheets\Preliminary\IRV22-0084_Preliminary Utility Plan.dwg 11/16/2022 ACASTELO 1:1

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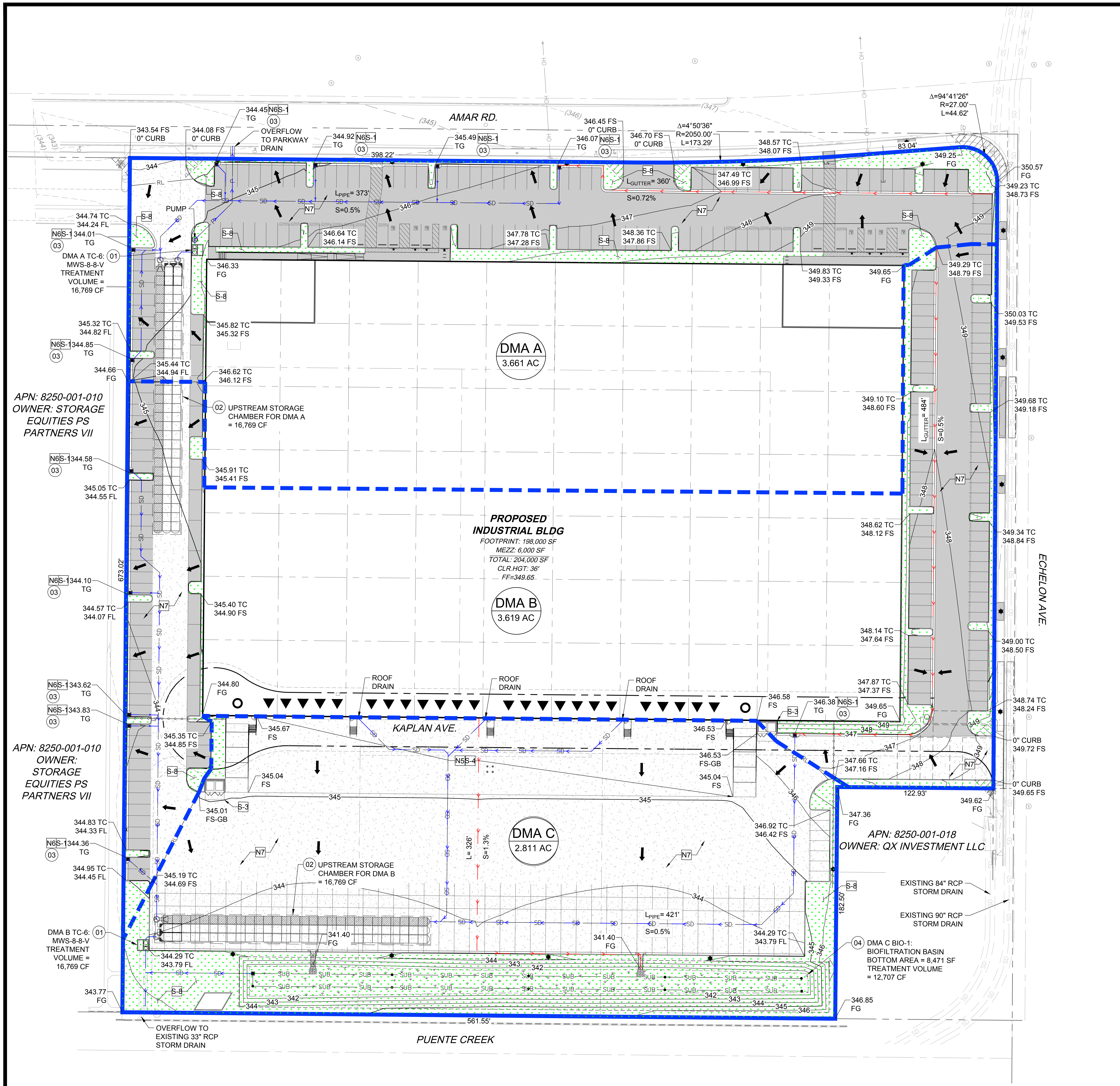

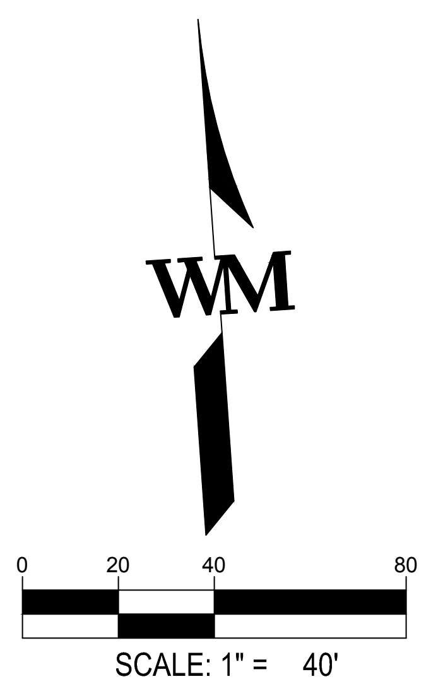

LEGEND:

DMA / ACRES	
L= XXX' S = X.X%	L = FLOW PATH LENGTH S = SLOPE
▬▬	PROPERTY LIMIT
▬ ▬ ▬	DRAINAGE AREA BOUNDARY
←···	SURFACE FLOW PATH
←···	PIPE FLOW PATH
SD	EXISTING STORM DRAIN
SD	PROPOSED STORM DRAIN
🟩	PROPOSED PERVIOUS AREA

EXISTING		**PROPOSED**
(5280)	MAJOR CONTOUR	5280
(5278)	MINOR CONTOUR	5278

NON-STRUCTURAL SOURCE CONTROL BMPS

N1	EDUCATION FOR PROPERTY OWNERS, TENANTS, AND OCCUPANTS **APPLIES TO ENTIRE SITE*
N2	ACTIVITY RESTRICTIONS **APPLIES TO ENTIRE SITE*
N3	COMMON AREA LANDSCAPE MANAGEMENT **APPLIES TO ENTIRE SITE*
N4	COMMON AREA LITTER CONTROL **APPLIES TO ENTIRE SITE*
N5	HOUSEKEEPING OF LOADING DOCKS
N6	COMMON AREA CATCH BASIN INSPECTION
N7	STREET SWEEPING PRIVATE STREETS AND PARKING LOTS

STRUCTURAL SOURCE CONTROL BMPS

S-1	STORM DRAIN MESSAGE AND SIGNAGE
S-3	OUTDOOR TRASH STORAGE / WASTE STORAGE AREAS
S-4	OUTDOOR LOADING DOCK / UNLOADING DOCK AREA
S-8	LANDSCAPE IRRIGATION PRACTICES

LID BMP NOTES

(01)	INSTALL MODULAR WETLANDS LINEAR MWS-8-8-V. SEE DETAIL 1 ON SHEET 9.
(02)	ADS STORMTECH CHAMBER. SEE DETAIL 3 ON SHEETS 9 AND 10.
(03)	OLDCASTLE FLOGARD CATCH BASIN INSERT FILTER FGP-24F GRATED INLET STYLE. SEE DETAIL 2 ON SHEET 9.
(04)	CONSTRUCT BIOFILTRATION BASIN. SEE DETAIL 4 SHEET 10.

SWQDv CALCULATION

PROJECT IS A DESIGNATED PROJECT (REDEVELOPMENT OF MORE THAN 5,000 S.F. OF IMPERVIOUS SURFACE)
ADDED OR REPLACED IMPERVIOUS AREA > 50% OF EXISTING IMPERVIOUS AREA
REQUIRED TO TREAT FOR THE ENTIRE SITE

FROM THE LOS ANGELES COUNTY 85TH PERCENTILE PRECIPITATION ISOHEYTAL MAP,
THE 85TH PERCENTILE, 24-HOUR RAIN EVENT = 1.00 INCH,
WHICH IS GREATER THAN THE 0.75 INCH RAIN EVENT.
THE 85TH PERCENTILE RAIN EVENT WILL BE USED TO CALCULATE THE DESIGN VOLUME (SWQDv).

SOIL TYPE 017 - YOLO CLAY LOAM

DUE TO LOW INFILTRATION RATES, INFILTRATION BMPS ARE INFEASIBLE.

DMA TABULATION

DMA ID	AREA (ACRES)	IMPERVIOUS FRACTION	SWQDv	BIOFILTRATION VOLUME (1.5 X SWQDv)	BMP TYPE	BMP SIZE
DMA A	3.661	0.935	11,177	16,766	T-6: PROPRIETARY BIOTREATMENT	MWS-8-8-V TREATMENT VOLUME = 16,769 CF
DMA B	3.619	0.942	11,122	16,683	T-6: PROPRIETARY BIOTREATMENT	MWS-8-8-V TREATMENT VOLUME = 16,769 CF
DMA C	2.811	0.754	7,118	10,677	BIO-1: BIOFILTRATION	BASIN BOTTOM SURFACE AREA = 8,471 SF TREATMENT VOLUME = 12,707 CF

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SHEET
8
Sheet 8 of 10

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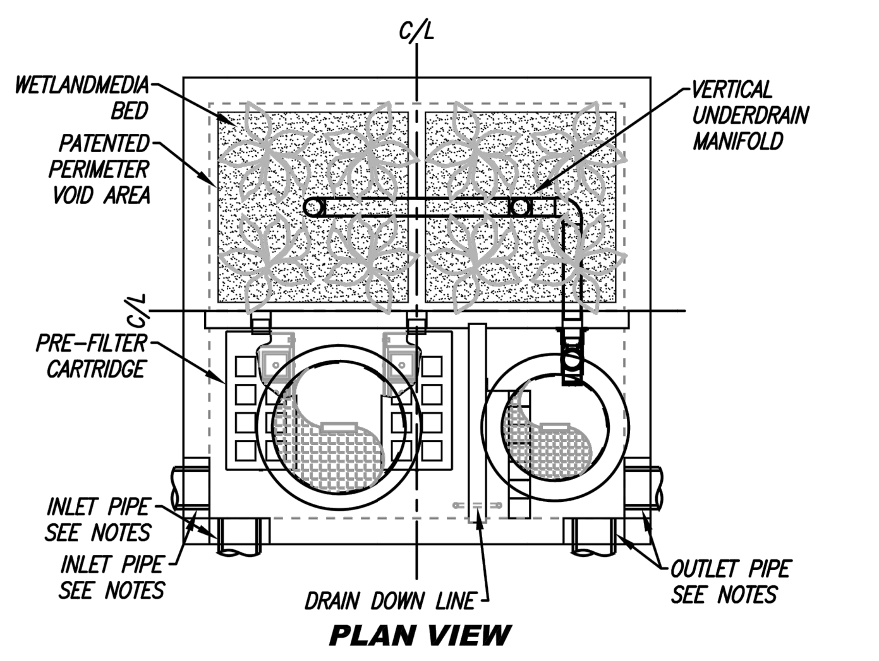
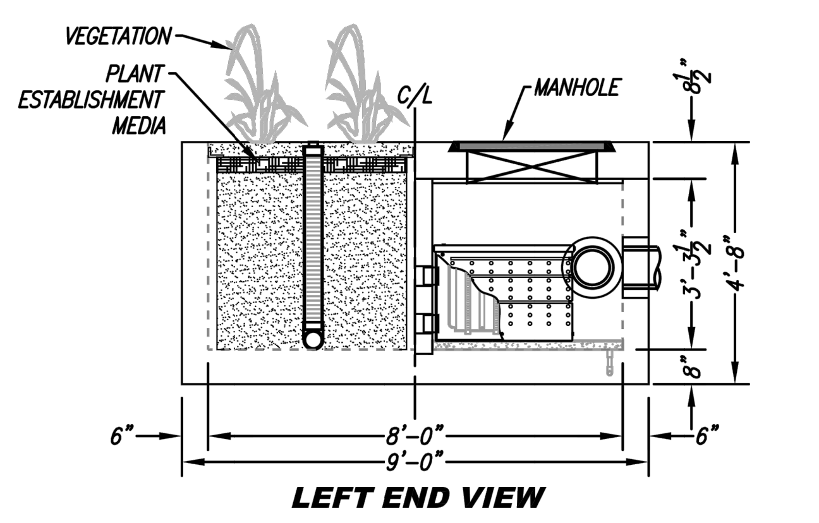
SITE SPECIFIC DATA

PROJECT NUMBER		----	
ORDER NUMBER		----	
PROJECT NAME		----	
PROJECT LOCATION		----	
STRUCTURE ID		----	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
10,076		N/A	
TREATMENT HGL AVAILABLE (FT)			N/K
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			----
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	----	PVC	8"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	0.00	PVC	8"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	4.08	4.08	4.08
SURFACE LOAD	PEDESTRIAN	N/A	PEDESTRIAN
FRAME & COVER	ø30"	OPEN PLANTER	ø24"
WETLANDMEDIA VOLUME (CY)			4.05
ORIFICE SIZE (DIA. INCHES)			ø1.09"

NOTES: PRELIMINARY NOT FOR CONSTRUCTION.



PLAN VIEW



LEFT END VIEW

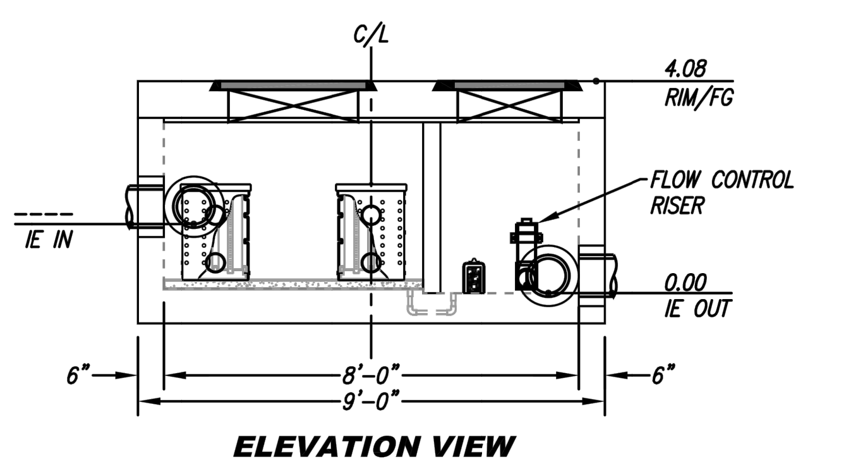
INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
4. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATER TIGHT PER MANUFACTURERS STANDARD CONNECTION DETAIL.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
6. VEGETATION SUPPLIED AND INSTALLED BY OTHERS. ALL UNITS WITH VEGETATION MUST HAVE DRIP OR SPRAY IRRIGATION SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR RESPONSIBLE FOR CONTACTING BIO CLEAN FOR ACTIVATION OF UNIT. MANUFACTURERS WARRANTY IS VOID WITH OUT PROPER ACTIVATION BY A BIO CLEAN REPRESENTATIVE.

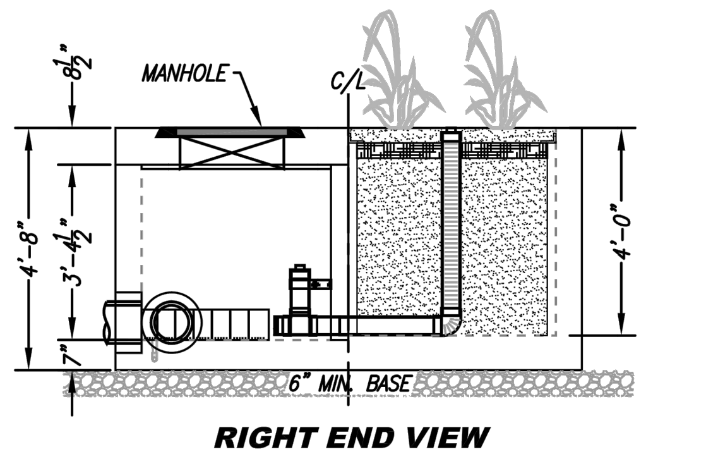
GENERAL NOTES

1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

10/15/19 JHAYDEN



ELEVATION VIEW



RIGHT END VIEW

REQUIRED TREATMENT VOLUME (CF)	10,076
DRAINDOWN DURATION (HOURS)	48
AVERAGE DISCHARGE RATE PER MWS UNIT(GPM)	26.17
OPERATING HEAD (FT)	3.4
WETLANDMEDIA INFILTRATION RATE (IN/HR)	26
OR	
WETLANDMEDIA LOADING RATE (GPM/SF)	0.26

MODULAR WETLANDS

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING US PATENTS: 7,425,262; 7,470,362; 7,674,378; 8,303,816; RELATED FOREIGN PATENTS OR OTHER PATENTS PENDING

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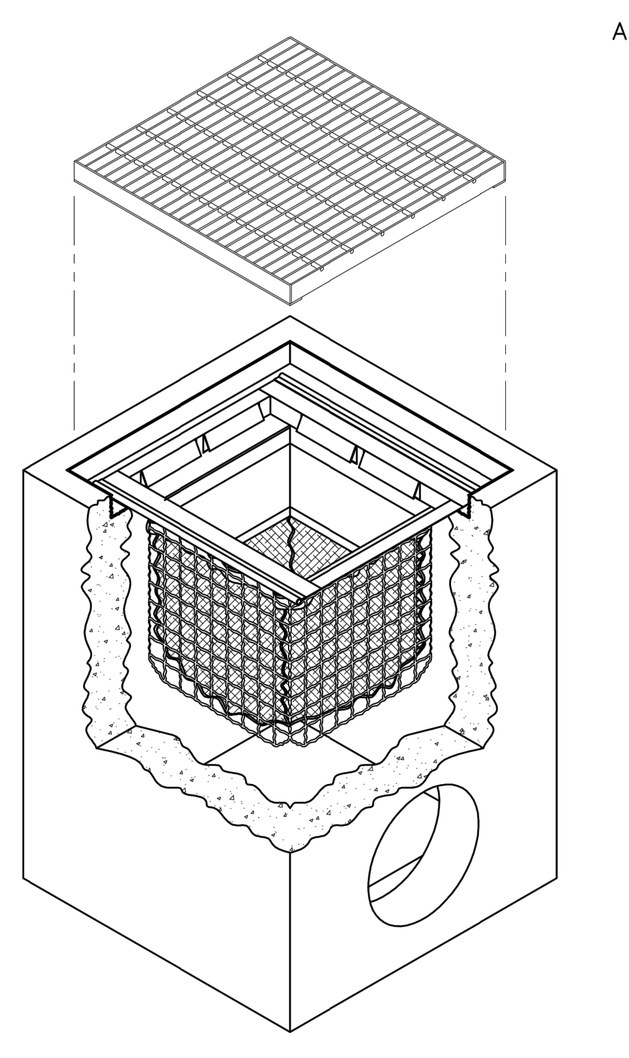
Bio Clean
A Forterra Company

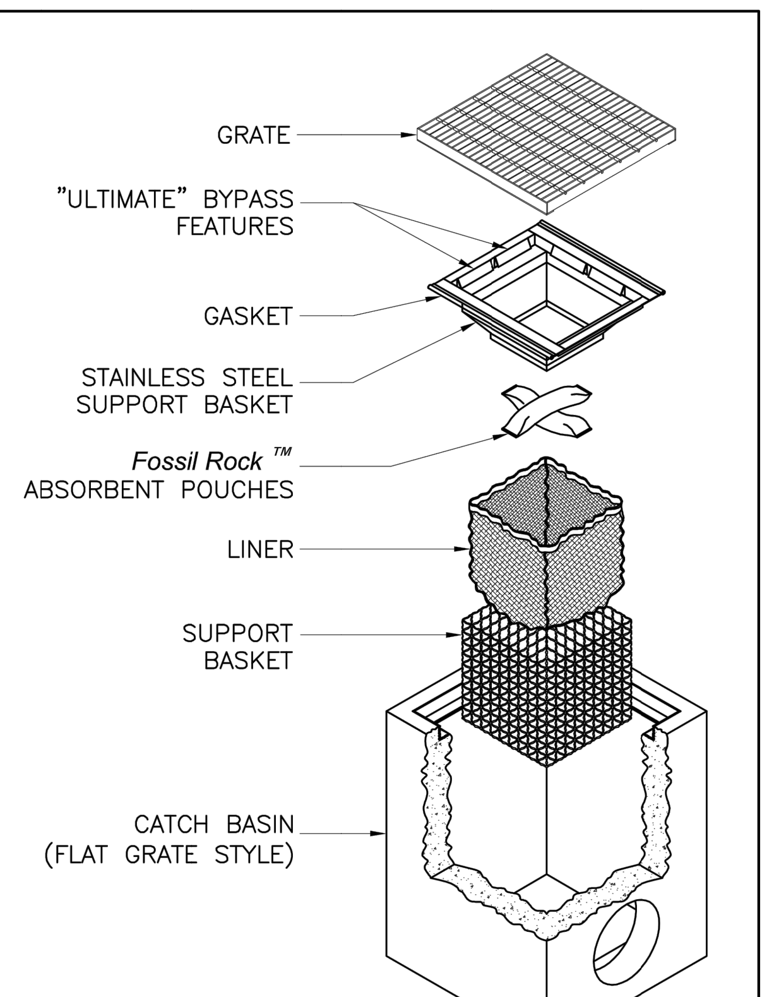
MWS-L-8-8-4'-0"-V
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

DETAIL 1: MWS-8-8-V
N.T.S.

FGP-0001



FloGard® FILTER
-INSTALLED INTO CATCH BASIN-



DETAIL A
EXPLODED VIEW

NOTES:

1. Filter insert shall have a high flow bypass feature.
2. Filter support frame shall be constructed from stainless steel Type 304.
3. Filter medium shall be *Fossil Rock* ™, installed and maintained in accordance with manufacturer specifications.
4. Storage capacity reflects 80% of maximum solids collection prior to impeding filtering bypass.

U.S. PATENT # 6,00,023 & 6,877,029

FloGard®
Catch Basin Insert Filter
Grated Inlet Style
Inlet Filtration

Oldcastle® Stormwater Solutions
7921 Southpark Plaza, Suite 200 | Littleton, CO | 80120 | Ph: 800.579.8819 | oldcastlestormwater.com

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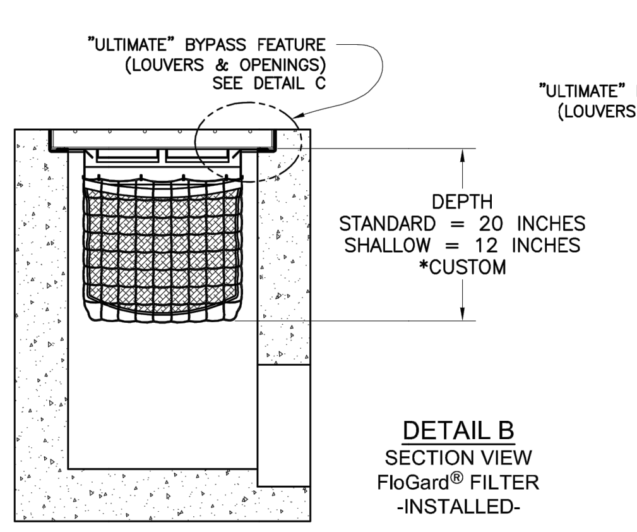
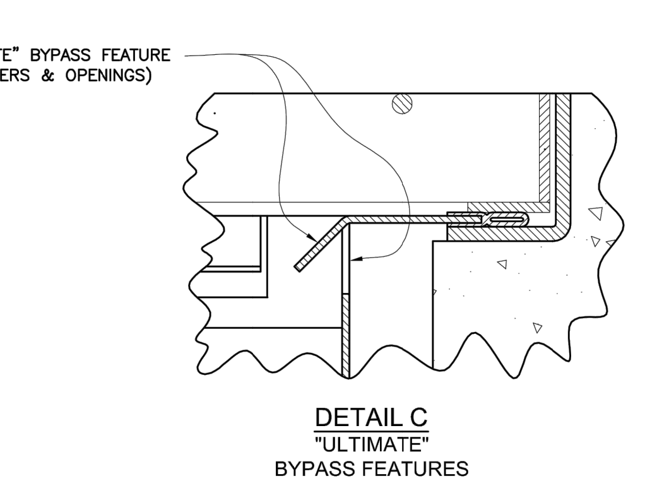
FGP-0001	G	ECO–0142 JPR 7/13/16	JPR 11/3/06	SHEET 1 OF 2

FGP-0001

U.S. PATENT # 6,00,023 & 6,877,029



DETAIL B
SECTION VIEW
FloGard® FILTER
-INSTALLED-



DETAIL C
"ULTIMATE"
BYPASS FEATURES

* MANY OTHER STANDARD & CUSTOM SIZES & DEPTHS AVAILABLE UPON REQUEST.

SPECIFIER CHART

MODEL NO. STANDARD DEPTH	STANDARD & SHALLOW DEPTH (Data in these columes is the same for both STANDARD & SHALLOW versions)			STANDARD DEPTH -20 Inches-		MODEL NO. SHALLOW DEPTH	SHALLOW DEPTH -12 Inches-	
	INLET ID Inside Dimension (inch x inch)	GRATE OD Outside Dimension (inch x inch)	TOTAL BYPASS CAPACITY (cu. ft. / sec.)	SOLIDS STORAGE CAPACITY (cu. ft.)	FILTERED FLOW (cu. ft. / sec.)		SOLIDS STORAGE CAPACITY (cu. ft.)	FILTERED FLOW (cu. ft. / sec.)
FGP-12F	12 X 12	12 X 14	2.8	0.3	0.4	FGP-12F8	.15	.25
FGP-16F	16 X 16	16 X 19	4.7	0.8	0.7	FGP-16F8	.45	.4
FGP-18F	18 X 18	18 X 20	4.7	0.8	0.7	FGP-18F8	.45	.4
FGP-1824F	16 X 22	18 X 24	5.0	1.5	1.2	FGP-1824F8	.85	.7
FGP-1836F	18 X 36	18 X 40	6.9	2.3	1.6	FGP-1836F8	1.3	.9
FGP-2024F	18 X 22	20 X 24	5.9	1.2	1.0	FGP-2024F8	.7	.55
FGP-21F	22 X 22	22 X 24	6.1	2.2	1.5	FGP-21F8	1.25	.85
FGP-24F	24 X 24	24 X 27	6.1	2.2	1.5	FGP-24F8	1.25	.85
FGP-2430F	24 X 30	26 X 30	7.0	2.8	1.8	FGP-2430F8	1.6	1.05
FGP-2436F	24 X 36	24 X 40	8.0	3.4	2.0	FGP-2436F8	1.95	1.15
FGP-2448F	24 X 48	26 X 48	9.3	4.4	2.4	FGP-2448F8	2.5	1.35
FGP-28F	28 X 28	32 X 32	6.3	2.2	1.5	FGP-28F8	1.25	.85
FGP-30F	30 X 30	30 X 34	8.1	3.6	2.0	FGP-30F8	2.05	1.15
FGP-36F	36 X 36	36 X 40	9.1	4.6	2.4	FGP-36F8	2.65	1.35
FGP-3648F	36 X 48	40 X 48	11.5	6.8	3.2	FGP-3648F8	3.9	1.85
FGP-48F	48 X 48	48 X 54	13.2	9.5	3.9	FGP-48F8	5.45	2.25
FGP-SD24F	24 X 24	28 X 28	6.1	2.2	1.5	FGP-SD24F8	1.25	.85

FloGard®
Catch Basin Insert Filter
Grated Inlet Style
Inlet Filtration

Oldcastle® Stormwater Solutions
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FGP-0001	G	ECO–0142 JPR 7/13/16	JPR 11/3/06	SHEET 2 OF 2

DETAIL 2: CATCH BASIN INSERT FILTER
N.T.S.

PROJECT INFORMATION

ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	

ADS
Advanced Drainage Systems, Inc.

ADS SiteAssist
FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR APP

HINES INDUSTRY
INDUSTRY, CA

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

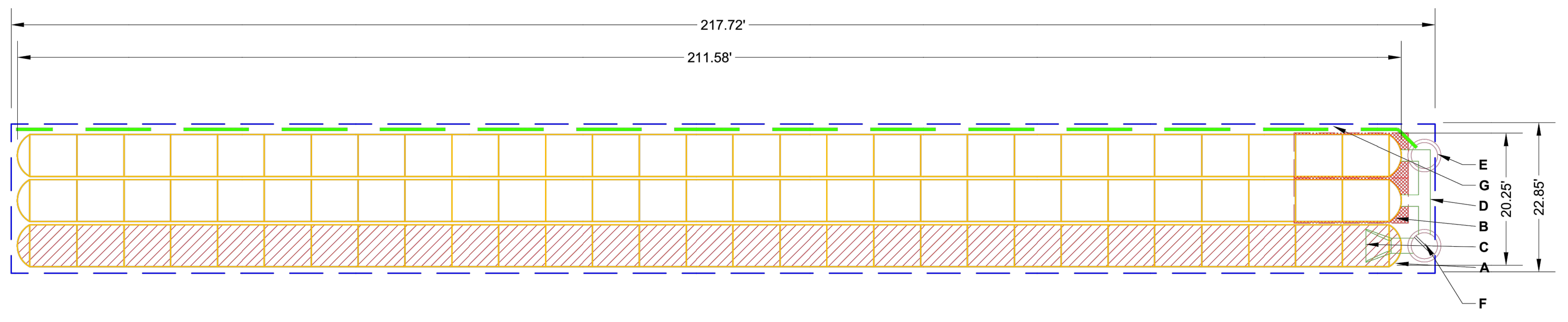
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT	
87	STORMTECH MC-3500 CHAMBERS
6	STORMTECH MC-3500 END CAPS
12	STONE ABOVE (in)
9	STONE BELOW (in)
40	STONE VOID
16769	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)
4975	SYSTEM AREA (SF)
481.1	SYSTEM PERIMETER (ft)

CONCEPTUAL ELEVATIONS	
MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	12.50
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	6.50
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	6.00
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	6.00
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	6.00
TOP OF STONE:	5.50
TOP OF MC-3500 CHAMBER:	4.50
24" ISOLATOR ROW PLUS INVERT:	0.92
18" x 18" BOTTOM MANIFOLD INVERT:	0.90
18" BOTTOM CONNECTION INVERT:	0.90
BOTTOM OF MC-3500 CHAMBER:	0.75
UNDERDRAIN INVERT:	0.00
BOTTOM OF STONE:	0.00

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED END CAP	A	24" BOTTOM CORED END CAP, PART#: MC3500IEPP24BC / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	2.06"	
PREFABRICATED END CAP	B	18" BOTTOM CORED END CAP, PART#: MC3500IEPP18BC / TYP OF ALL 18" BOTTOM CONNECTIONS	1.77"	
FLAMP	C	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MC350024RAMP		
MANIFOLD	D	18" x 18" BOTTOM MANIFOLD, ADS N-12	1.77"	
CONCRETE STRUCTURE	E	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		4.0 CFS OUT
CONCRETE STRUCTURE W/WEIR	F	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		11.0 CFS IN
UNDERDRAIN	G	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		



▨	ISOLATOR ROW PLUS (SEE DETAIL)
⊠	PLACE MINIMUM 17.50' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS
— —	BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

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4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

0 | 20' | 40'

SHEET
2 OF 5

DETAIL 3: ADS STORMTECH CHAMBER
N.T.S.

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REGISTERED PROFESSIONAL ENGINEER
LUCAS A. CORSBIE
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FOR AND ON BEHALF OF WARE MALCOMB

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NO.	DATE	REMARKS

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PA / PM:	L. CORSBIE
DESIGNED:	B. SUNDHEIMER
DATE:	11/16/22
PLOT DATE:	11/16/22

SHEET
9
Sheet 9 of 10

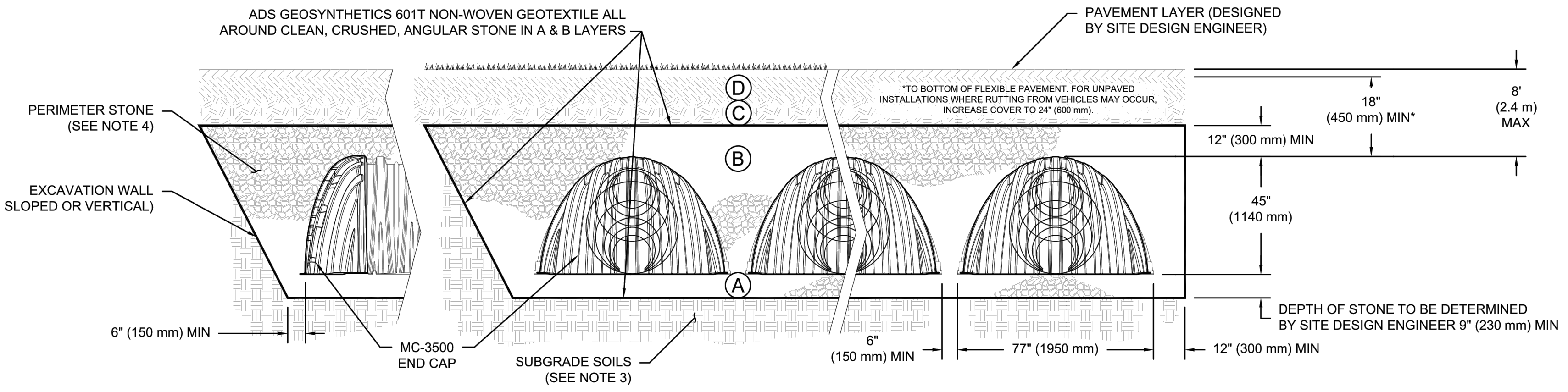
NOT FOR CONSTRUCTION

CAUTION: IF THIS SHEET IS NOT 24"x36" IT IS A REDUCED PRINT

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
    - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
    - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
    - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

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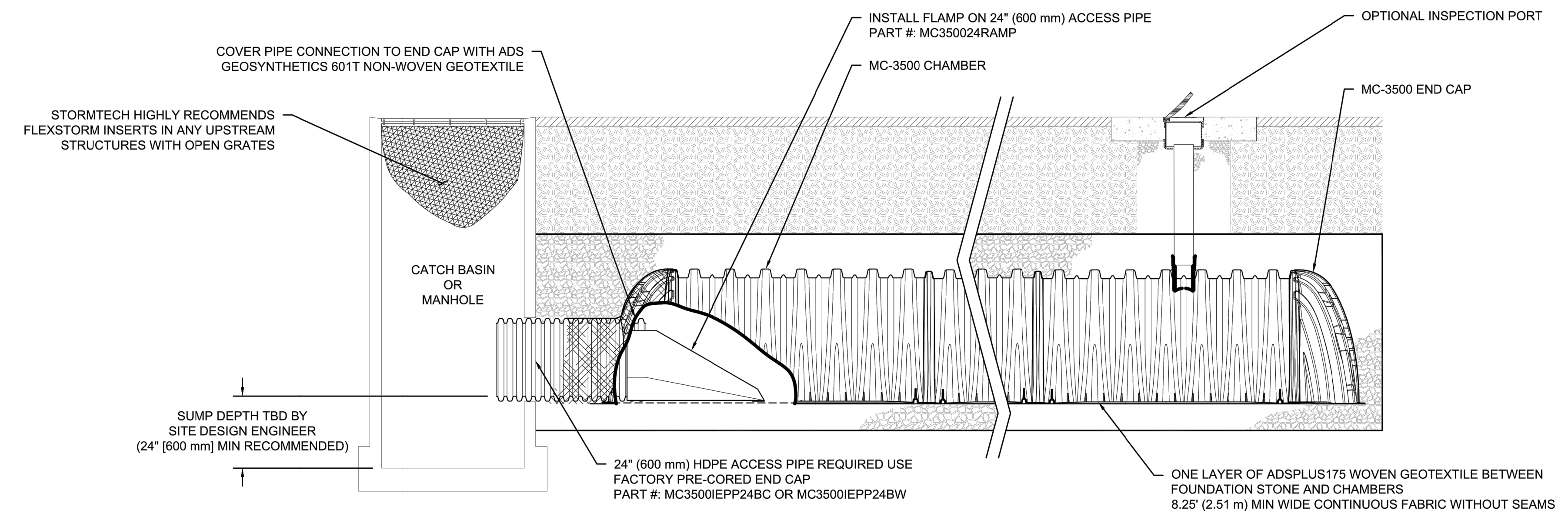
SHEET 3 OF 5



MC-3500 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
    - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
    - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
    - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
    - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
    - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
    - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
    - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
        - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
        - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
    - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

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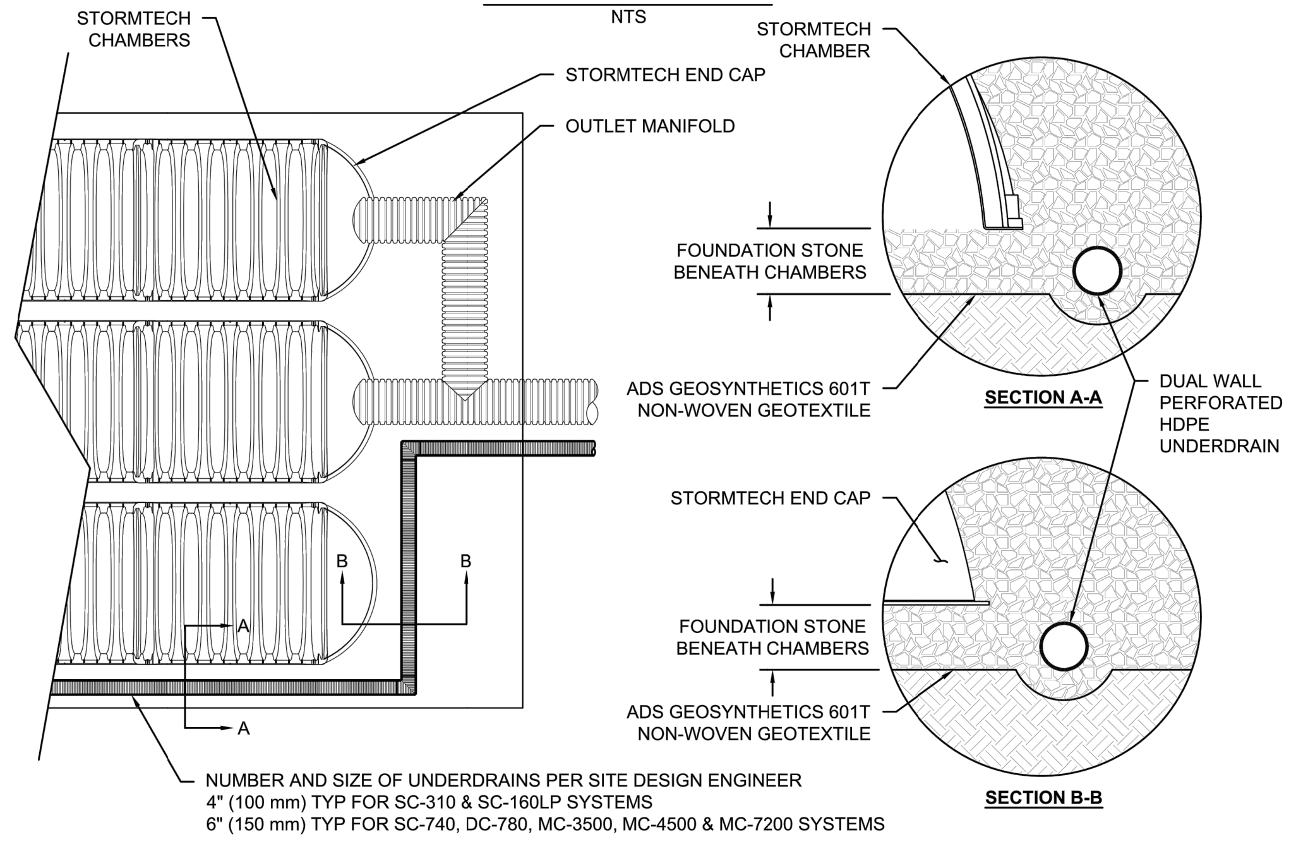
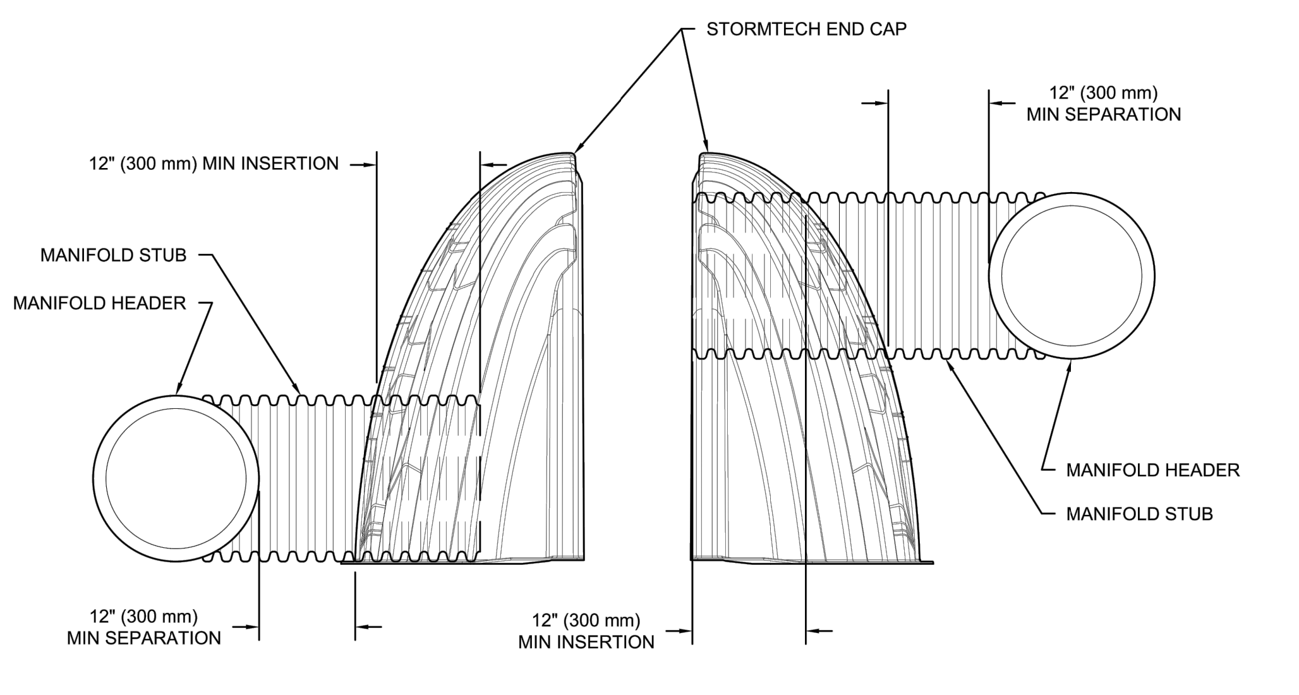
SHEET 4 OF 5

UNDERDRAIN DETAIL
NTS



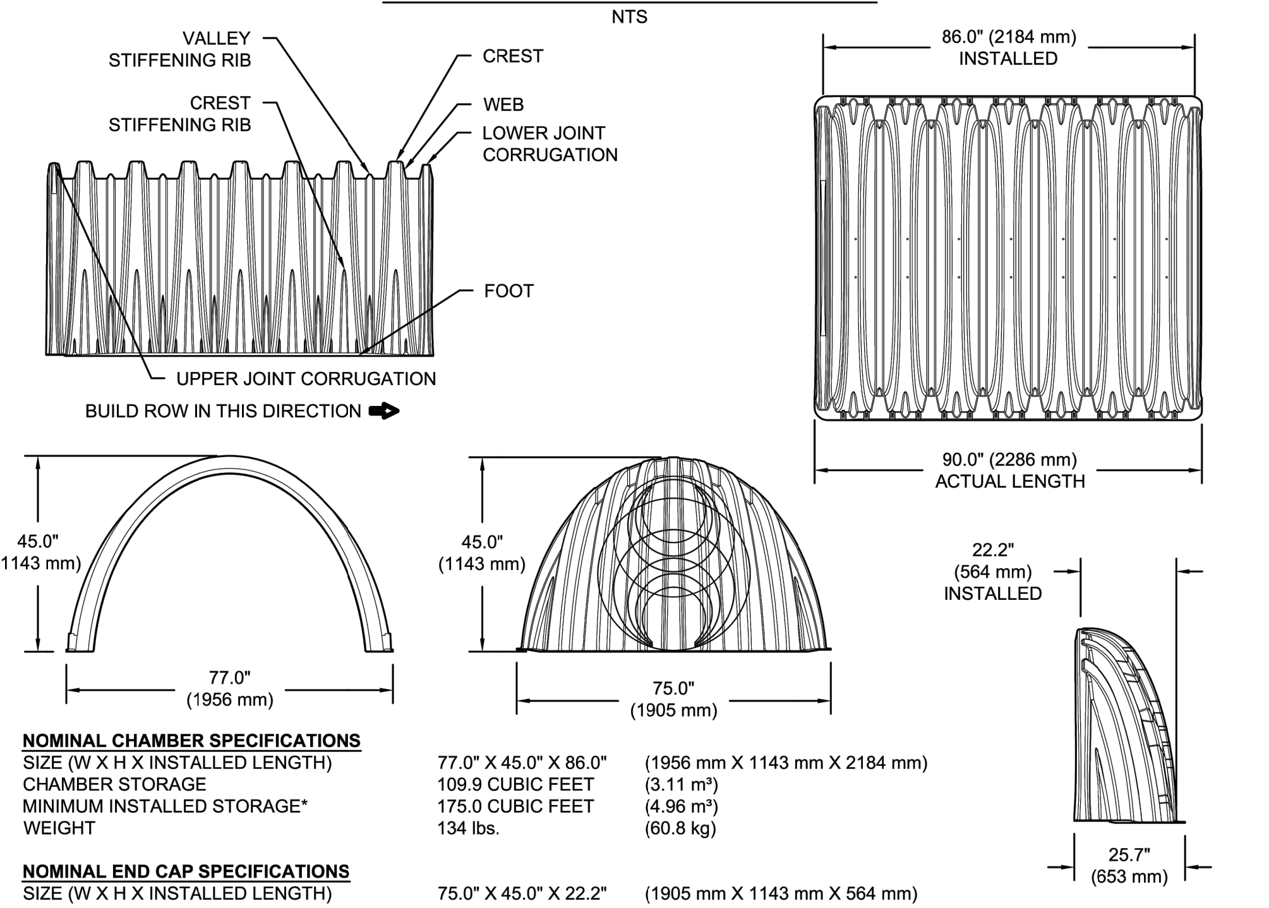
NUMBER AND SIZE OF UNDERDRAINS PER SITE DESIGN ENGINEER
4" (100 mm) TYP FOR SC-310 & SC-160LP SYSTEMS
6" (150 mm) TYP FOR SC-740, DC-780, MC-3500, MC-4500 & MC-7200 SYSTEMS

MC-SERIES END CAP INSERTION DETAIL
NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

MC-3500 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m³)
WEIGHT	134 lbs.	(60.8 kg)

NOMINAL END CAP SPECIFICATIONS

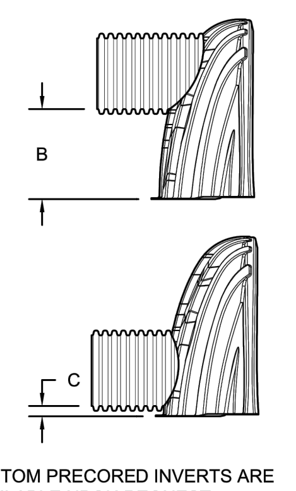
SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW			
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW			
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

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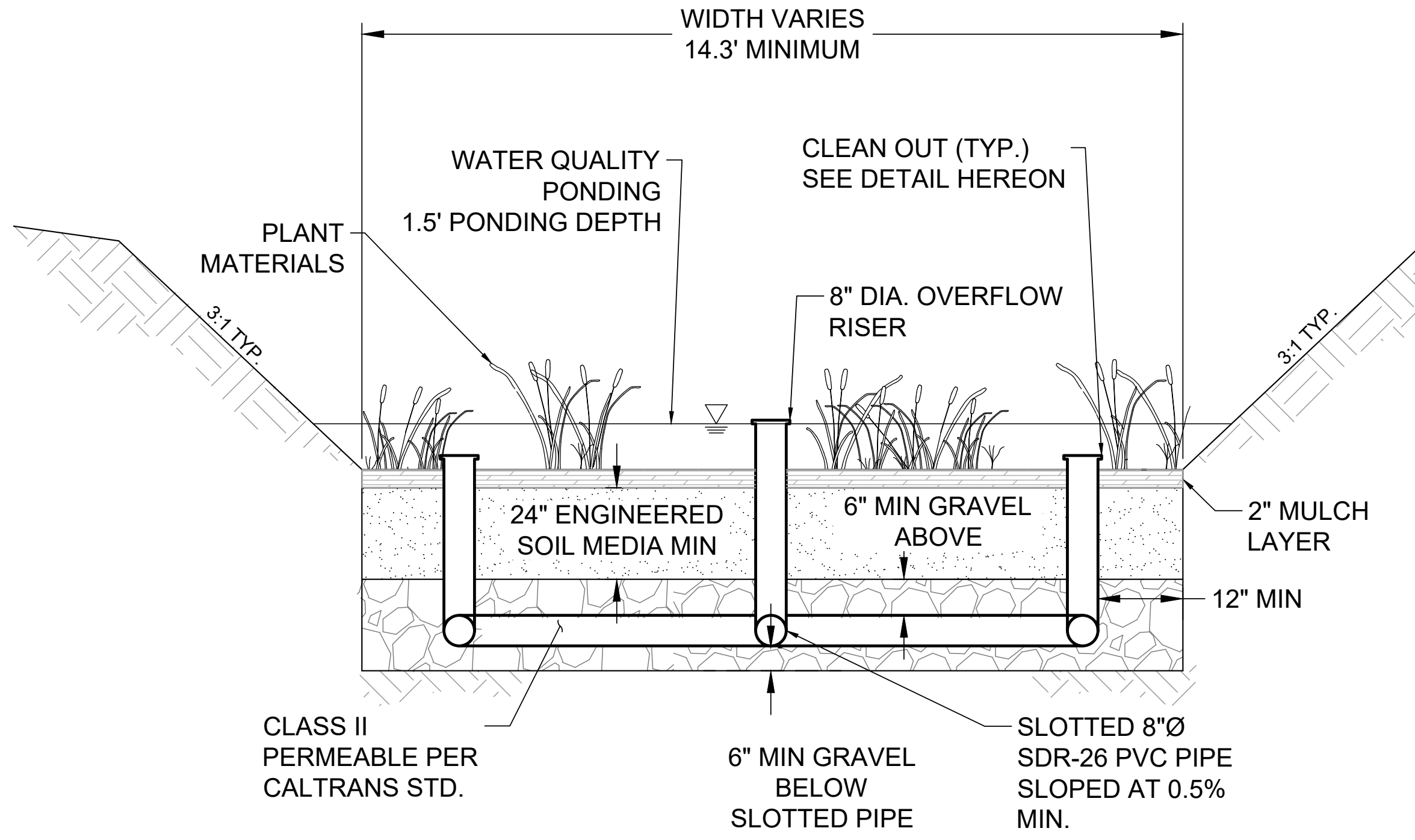
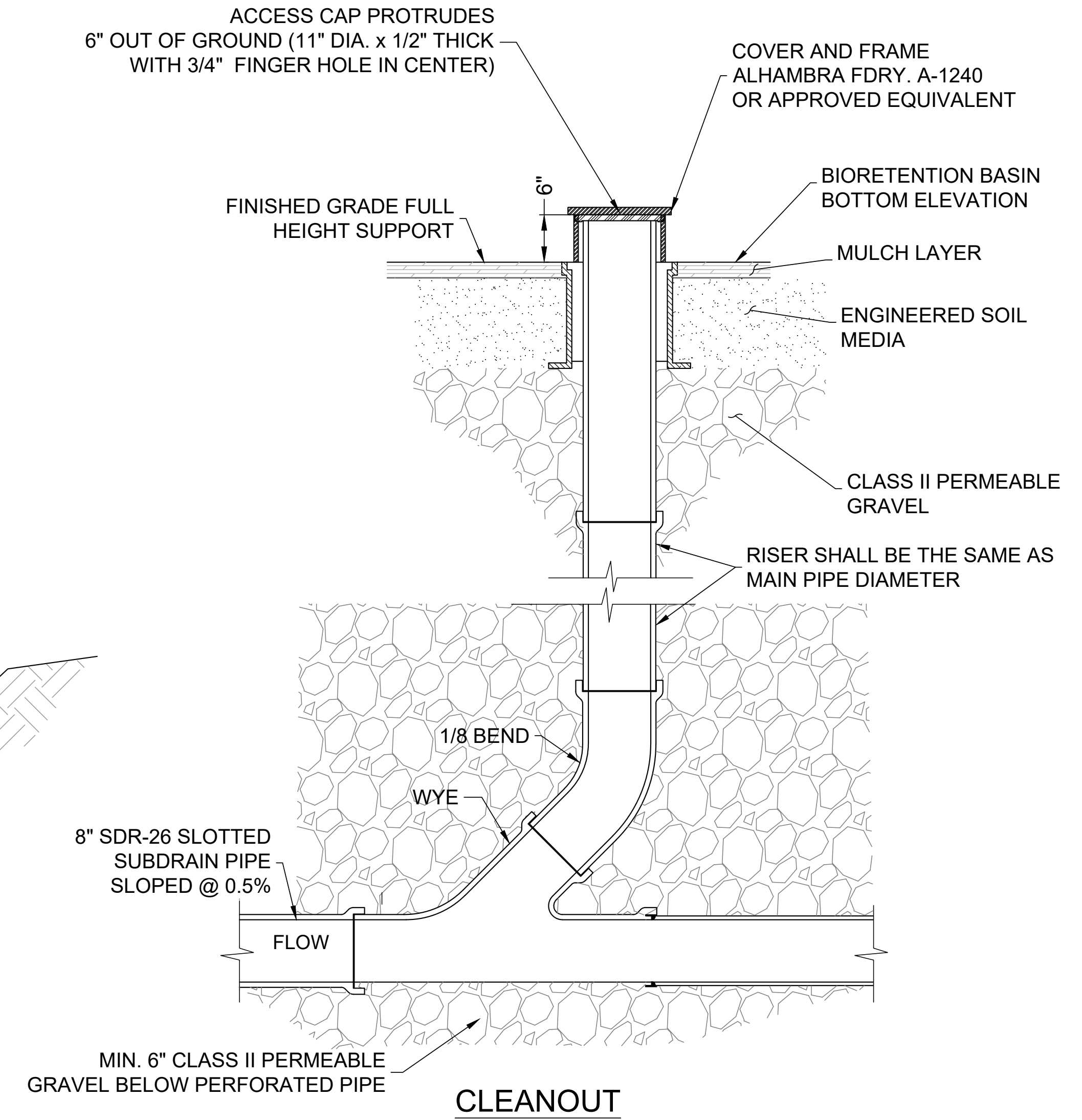
SHEET 5 OF 5

DETAIL 3 (CONT'D): ADS STORMTECH CHAMBER
N.T.S.



DETAIL 4: BIOFILTRATION BASIN WITH UNDERDRAINS
N.T.S.



CLEANOUT
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DATE:	11/16/22
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10
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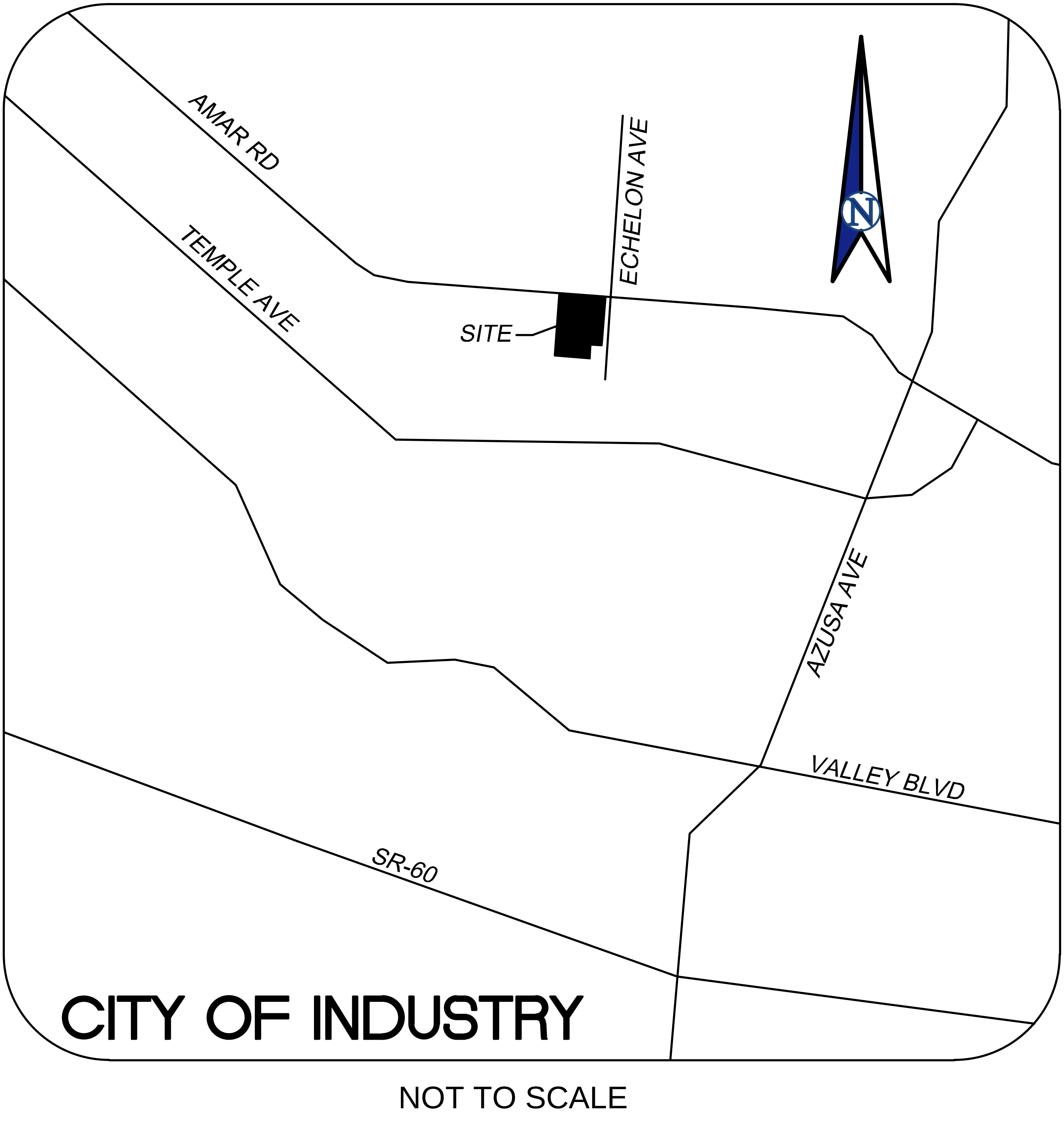
W:\IRV22\0084\00\Civil\CAD\Sheets\Preliminary\IRV22-0084_Preliminary LID Plan.dwg 11/16/2022 ACASTELO 1:1

Attachment F

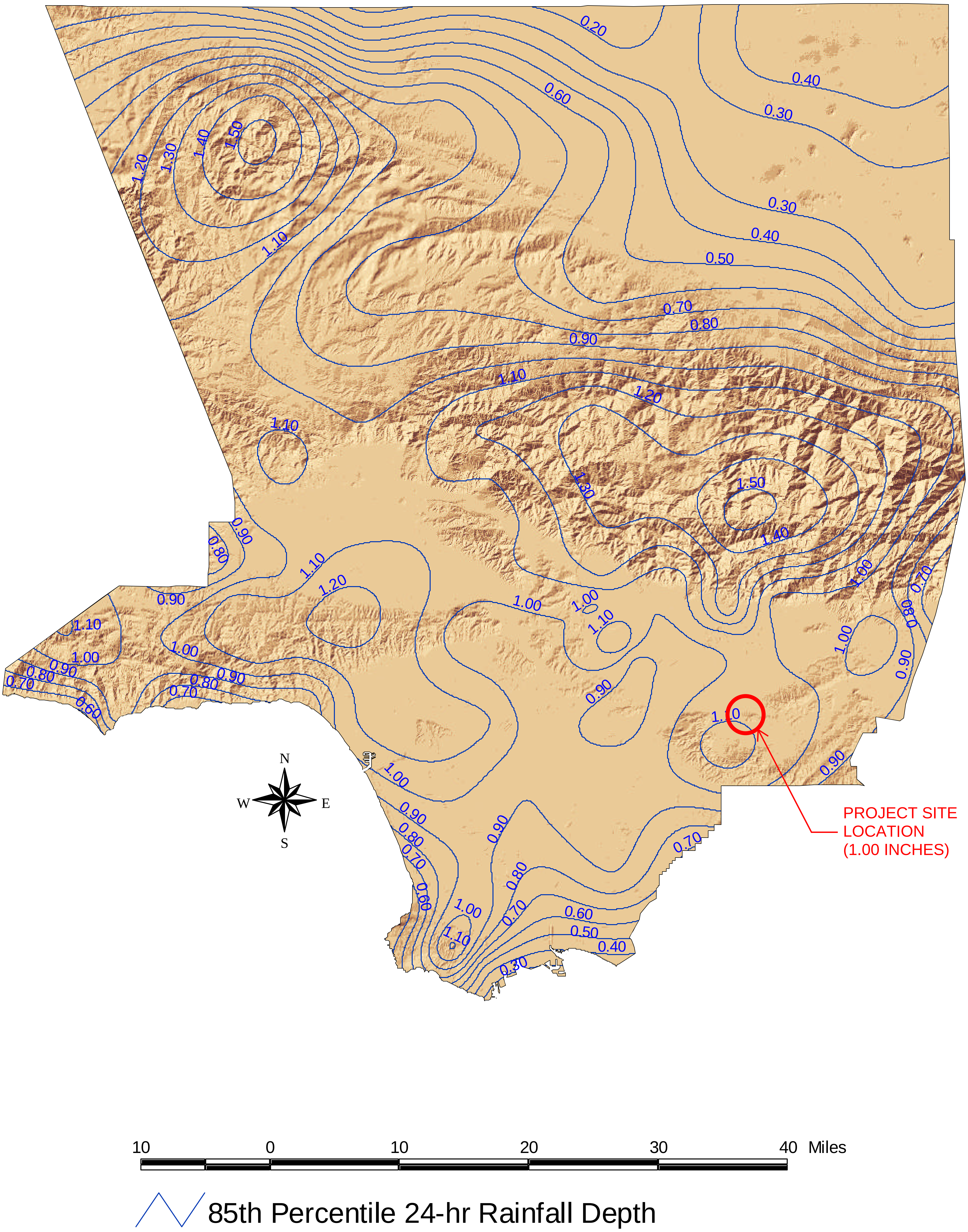
Reference Maps

FIGURE 1 - VICINITY MAP

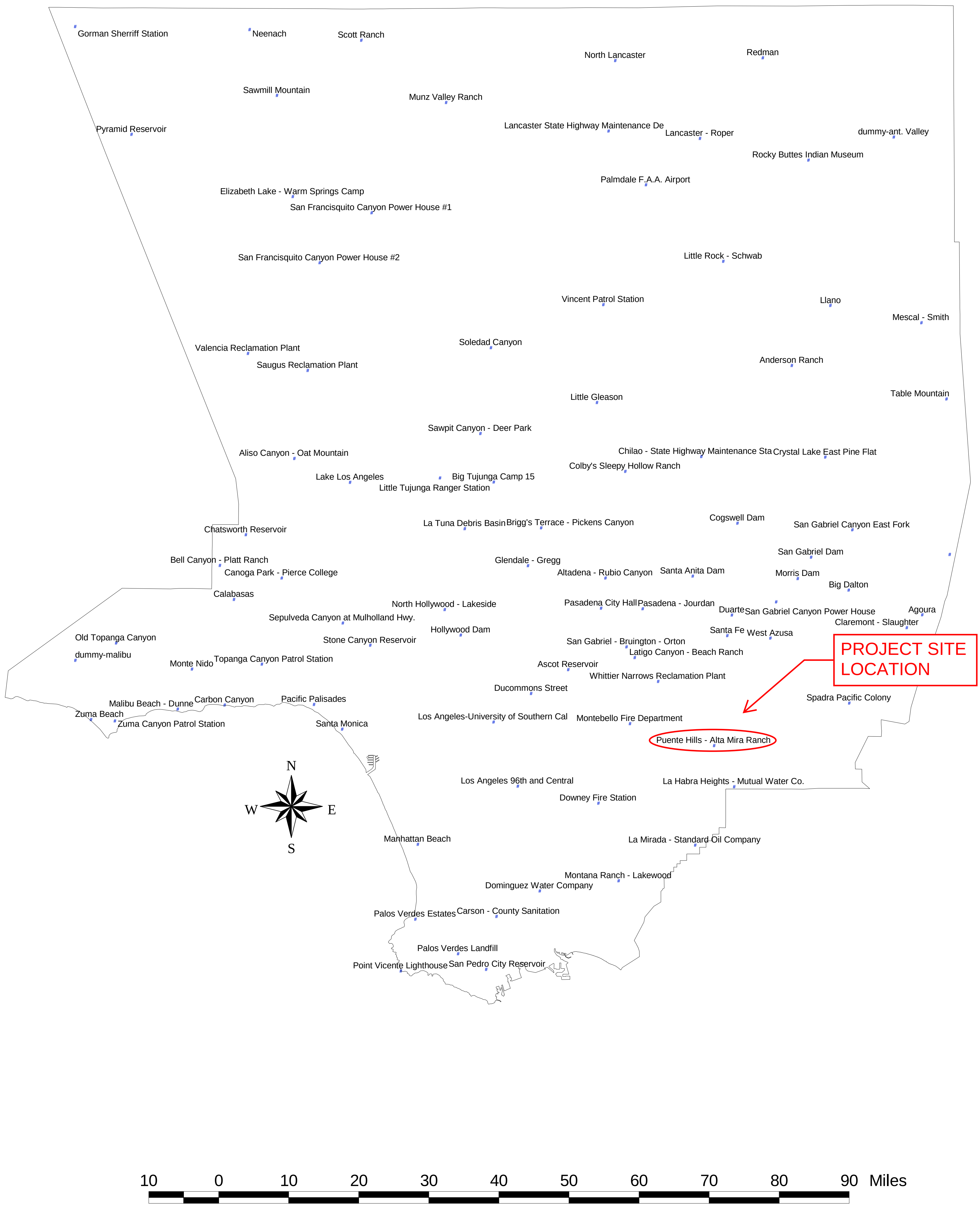


NOT TO SCALE

85th Percentile 24-hr Rainfall Isohyetal Map



85th Percentile 24-hr Isohyetal Map Gages



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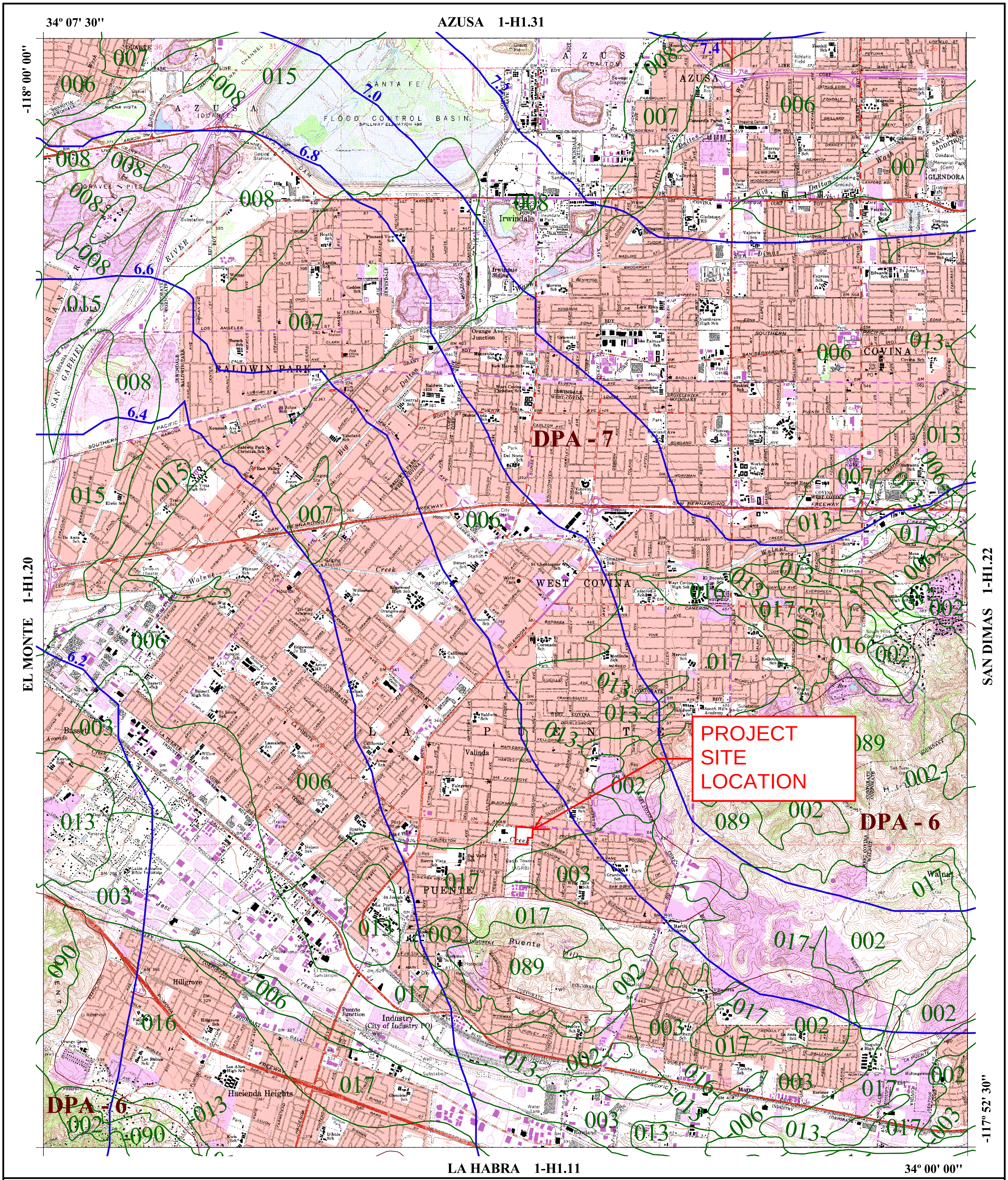


016 SOIL CLASSIFICATION AREA

7.2 INCHES OF RAINFALL

DPA - 6 DEBRIS POTENTIAL AREA

25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

BALDWIN PARK
50-YEAR 24-HOUR ISOHYET

1-H1.21

LOS ANGELES COUNTY PUBLIC WORKS Public Service That Works

Soil Identification Table

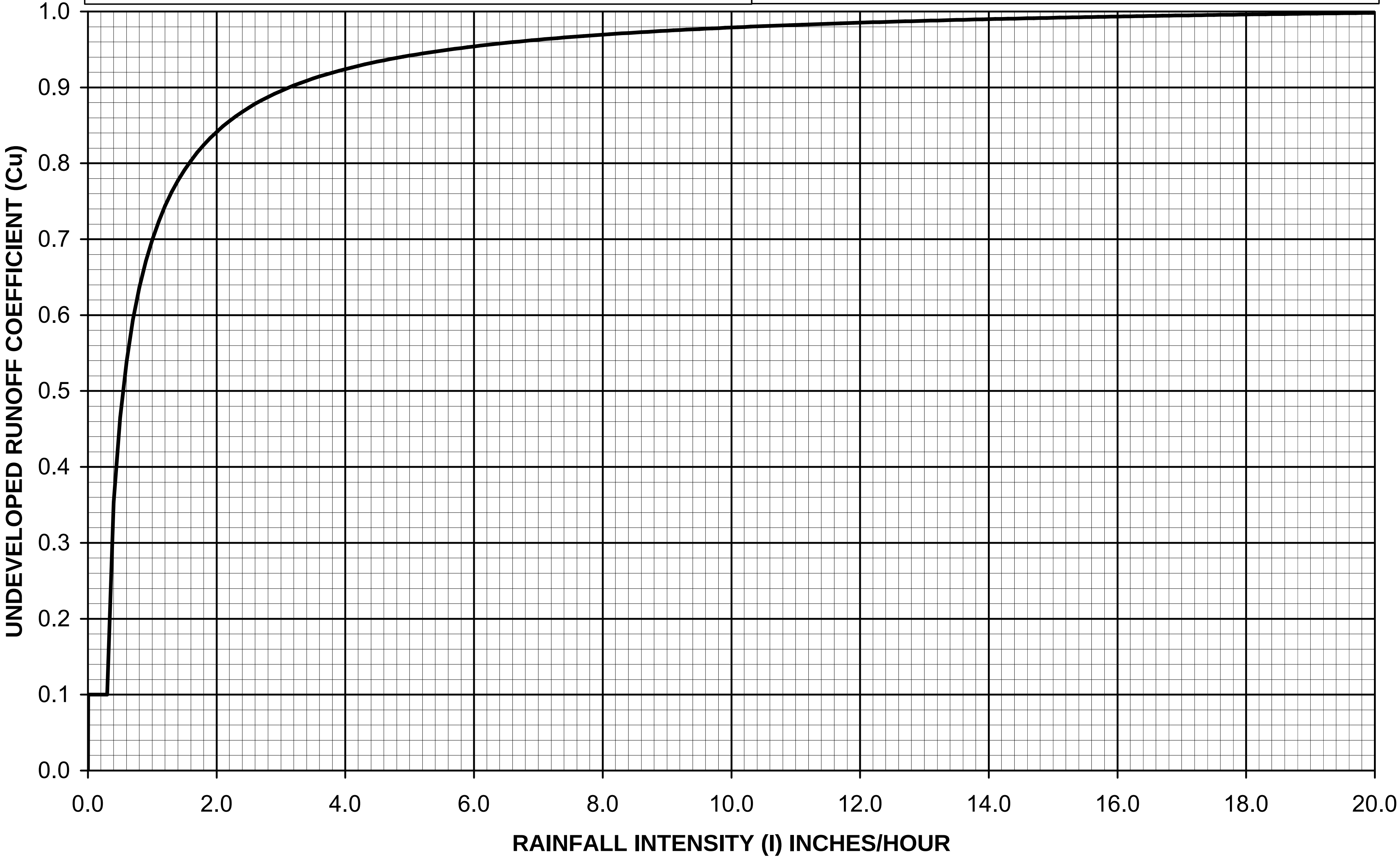
Number	Name	Original Name
2	ALTAMONT CLAY LOAM	A
3	CHINO SILT LOAM	CS-1
4	DIABLO CLAY LOAM	DY
5	HANFORD FINE SANDY LOAM	HF
6	HANFORD FINE SANDY LOAM	HF-1
7	HANFORD GRAVELLY SANDY LOAM	HG
8	HANFORD SILT LOAM	HN
9	MONTEZUMA CLAY ADOBE	M
10	OAKLEY FINE SAND	OS
11	PLACENTIA LOAM	PL
12	RAMONA CLAY LOAM	RC- 1
13	RAMONA LOAM	RO
14	RAMONA SANDY LOAM	RS
15	TUJUNGA FINE SANDY LOAM	TF
16	YOLO LOAM	Y
17	YOLO CLAY LOAM	YC
18	YOLO FINE SANDY LOAM	YF
19	YOLO GRAVELLY SANDY LOAM	YG
20	YOLO SANDY LOAM	YS
21	SANTA MONICA MOUNTAINS	SMM-1
22	SANTA MONICA MOUNTAINS	SMM-2
23	SANTA MONICA MOUNTAINS	SMM-3
24	SANTA MONICA MOUNTAINS	SMM-4
25	SANTA MONICA MOUNTAINS	SMM-5
26	SANTA MONICA MOUNTAINS	SMM-6
27	SANTA MONICA MOUNTAINS	SMM-7
28	SANTA MONICA MOUNTAINS	SMM-8
29	SANTA MONICA MOUNTAINS	SMM-9
30	SANTA MONICA MOUNTAINS	SMM-10
31	SANTA MONICA MOUNTAINS	SMM- 11
32	SANTA MONICA MOUNTAINS	SMM-12
33	SANTA MONICA MOUNTAINS	SMM-13
34	SANTA MONICA MOUNTAINS	SMM-14
35	SANTA MONICA MOUNTAINS	SMM-15
36	SANTA MONICA MOUNTAINS	SMM-16
37	SANTA MONICA MOUNTAINS	SMM- 17
38	SANTA MONICA MOUNTAINS	SMM- 18

$C_D = (0.9 * IMP) + (1.0 - IMP) * C_U$

Where: C_D = Developed Runoff Coefficient
IMP = Proportion Impervious
C_U = Undeveloped runoff coefficient

Los Angeles County Department of Public Works

RUNOFF COEFFICIENT CURVE
SOIL TYPE NO. 017



NOAA Atlas 14, Volume 6, Version 2
Location name: La Puente, California, USA*
Latitude: 34.0358°, Longitude: -117.9364°
Elevation: 349.27 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.141** (0.118-0.171)	**0.181** (0.151-0.219)	**0.235** (0.196-0.285)	**0.280** (0.231-0.342)	**0.342** (0.272-0.434)	**0.391** (0.305-0.507)	**0.443** (0.336-0.589)	**0.496** (0.366-0.680)	**0.571** (0.403-0.818)	**0.631** (0.429-0.937)
10-min	**0.203** (0.169-0.245)	**0.260** (0.217-0.314)	**0.337** (0.280-0.409)	**0.401** (0.331-0.491)	**0.490** (0.391-0.622)	**0.561** (0.437-0.727)	**0.634** (0.482-0.844)	**0.712** (0.525-0.975)	**0.819** (0.578-1.17)	**0.905** (0.616-1.34)
15-min	**0.245** (0.205-0.296)	**0.314** (0.262-0.380)	**0.407** (0.339-0.494)	**0.485** (0.400-0.593)	**0.593** (0.472-0.752)	**0.678** (0.528-0.880)	**0.767** (0.582-1.02)	**0.861** (0.634-1.18)	**0.991** (0.699-1.42)	**1.09** (0.744-1.62)
30-min	**0.336** (0.281-0.406)	**0.431** (0.360-0.522)	**0.559** (0.465-0.678)	**0.665** (0.549-0.814)	**0.813** (0.648-1.03)	**0.930** (0.725-1.21)	**1.05** (0.799-1.40)	**1.18** (0.870-1.62)	**1.36** (0.959-1.95)	**1.50** (1.02-2.23)
60-min	**0.479** (0.400-0.579)	**0.614** (0.512-0.743)	**0.795** (0.662-0.965)	**0.947** (0.781-1.16)	**1.16** (0.922-1.47)	**1.33** (1.03-1.72)	**1.50** (1.14-1.99)	**1.68** (1.24-2.30)	**1.93** (1.37-2.77)	**2.14** (1.45-3.17)
2-hr	**0.701** (0.586-0.847)	**0.893** (0.745-1.08)	**1.15** (0.958-1.40)	**1.37** (1.13-1.67)	**1.66** (1.33-2.11)	**1.90** (1.48-2.46)	**2.14** (1.63-2.85)	**2.40** (1.77-3.29)	**2.75** (1.94-3.94)	**3.04** (2.07-4.51)
3-hr	**0.880** (0.736-1.06)	**1.12** (0.933-1.35)	**1.44** (1.20-1.74)	**1.70** (1.40-2.08)	**2.07** (1.65-2.62)	**2.36** (1.84-3.06)	**2.66** (2.02-3.54)	**2.97** (2.19-4.08)	**3.41** (2.41-4.88)	**3.76** (2.56-5.58)
6-hr	**1.25** (1.05-1.52)	**1.59** (1.33-1.93)	**2.04** (1.70-2.48)	**2.42** (1.99-2.96)	**2.94** (2.34-3.72)	**3.34** (2.60-4.33)	**3.76** (2.86-5.01)	**4.21** (3.10-5.76)	**4.82** (3.40-6.89)	**5.30** (3.61-7.87)
12-hr	**1.66** (1.38-2.00)	**2.12** (1.77-2.57)	**2.74** (2.28-3.33)	**3.26** (2.69-3.99)	**3.97** (3.16-5.03)	**4.52** (3.52-5.86)	**5.10** (3.87-6.78)	**5.70** (4.20-7.81)	**6.52** (4.60-9.34)	**7.18** (4.89-10.7)
24-hr	**2.23** (1.97-2.57)	**2.90** (2.57-3.35)	**3.80** (3.35-4.40)	**4.54** (3.97-5.30)	**5.57** (4.71-6.71)	**6.37** (5.28-7.84)	**7.20** (5.83-9.07)	**8.06** (6.35-10.4)	**9.26** (7.00-12.5)	**10.2** (7.46-14.2)
2-day	**2.73** (2.41-3.14)	**3.62** (3.20-4.18)	**4.82** (4.24-5.57)	**5.81** (5.08-6.78)	**7.18** (6.08-8.65)	**8.25** (6.85-10.2)	**9.37** (7.58-11.8)	**10.5** (8.30-13.6)	**12.1** (9.18-16.4)	**13.4** (9.81-18.7)
3-day	**3.03** (2.68-3.49)	**4.08** (3.60-4.71)	**5.48** (4.83-6.35)	**6.65** (5.82-7.76)	**8.28** (7.01-9.98)	**9.56** (7.92-11.8)	**10.9** (8.81-13.7)	**12.3** (9.66-15.9)	**14.2** (10.7-19.2)	**15.7** (11.5-21.9)
4-day	**3.27** (2.89-3.77)	**4.43** (3.92-5.12)	**6.00** (5.29-6.94)	**7.31** (6.39-8.53)	**9.13** (7.73-11.0)	**10.6** (8.76-13.0)	**12.1** (9.76-15.2)	**13.6** (10.7-17.7)	**15.8** (12.0-21.3)	**17.6** (12.8-24.5)
7-day	**3.73** (3.30-4.31)	**5.08** (4.49-5.87)	**6.92** (6.10-8.02)	**8.47** (7.41-9.89)	**10.7** (9.02-12.9)	**12.4** (10.3-15.3)	**14.2** (11.5-17.9)	**16.2** (12.7-21.0)	**18.9** (14.3-25.5)	**21.1** (15.4-29.5)
10-day	**4.03** (3.57-4.65)	**5.50** (4.86-6.35)	**7.52** (6.63-8.70)	**9.23** (8.07-10.8)	**11.7** (9.87-14.1)	**13.6** (11.3-16.8)	**15.7** (12.7-19.8)	**17.9** (14.1-23.2)	**21.0** (15.9-28.4)	**23.5** (17.2-32.9)
20-day	**4.73** (4.19-5.46)	**6.50** (5.75-7.51)	**8.96** (7.89-10.4)	**11.1** (9.67-12.9)	**14.1** (11.9-17.0)	**16.6** (13.7-20.4)	**19.2** (15.5-24.2)	**22.0** (17.3-28.5)	**26.1** (19.7-35.2)	**29.4** (21.5-41.0)
30-day	**5.58** (4.94-6.43)	**7.67** (6.77-8.85)	**10.6** (9.32-12.2)	**13.1** (11.4-15.3)	**16.7** (14.1-20.2)	**19.7** (16.3-24.2)	**22.9** (18.5-28.8)	**26.3** (20.7-34.1)	**31.2** (23.6-42.1)	**35.3** (25.8-49.3)
45-day	**6.59** (5.83-7.60)	**9.00** (7.95-10.4)	**12.4** (10.9-14.3)	**15.3** (13.4-17.9)	**19.5** (16.5-23.6)	**23.0** (19.1-28.3)	**26.7** (21.6-33.7)	**30.8** (24.3-39.9)	**36.6** (27.7-49.4)	**41.4** (30.3-57.9)
60-day	**7.61** (6.73-8.77)	**10.3** (9.10-11.9)	**14.1** (12.4-16.3)	**17.3** (15.2-20.2)	**22.1** (18.7-26.6)	**26.0** (21.5-32.0)	**30.1** (24.4-38.0)	**34.7** (27.3-44.9)	**41.2** (31.2-55.6)	**46.6** (34.1-65.1)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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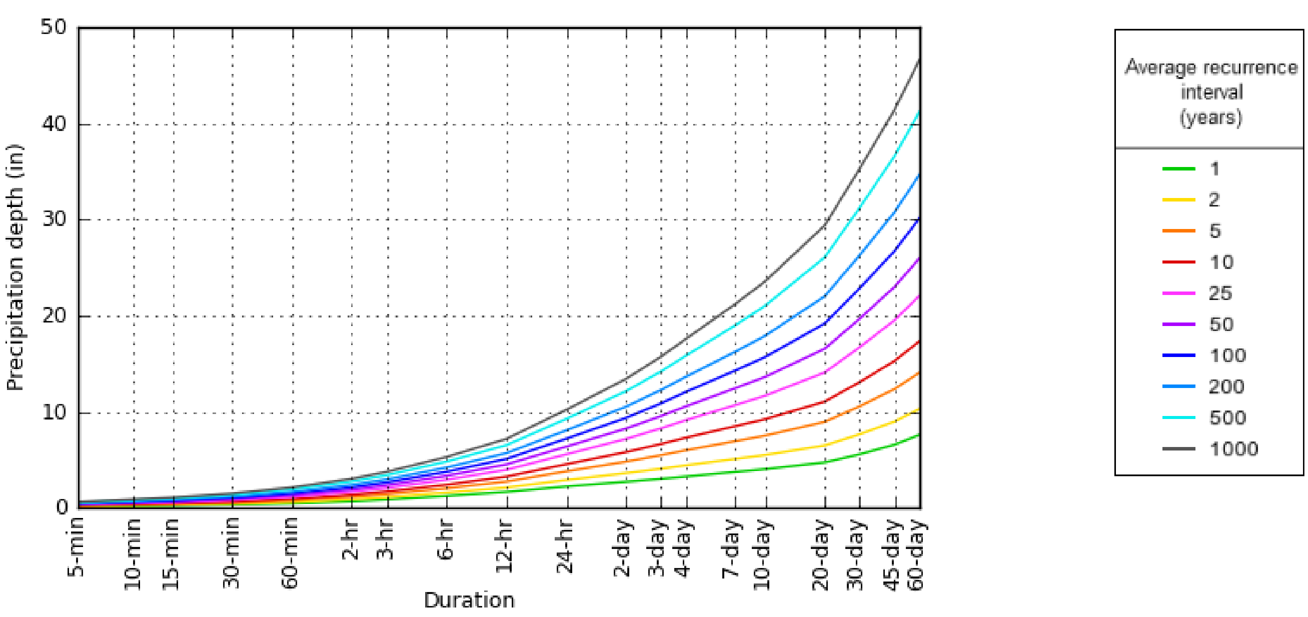
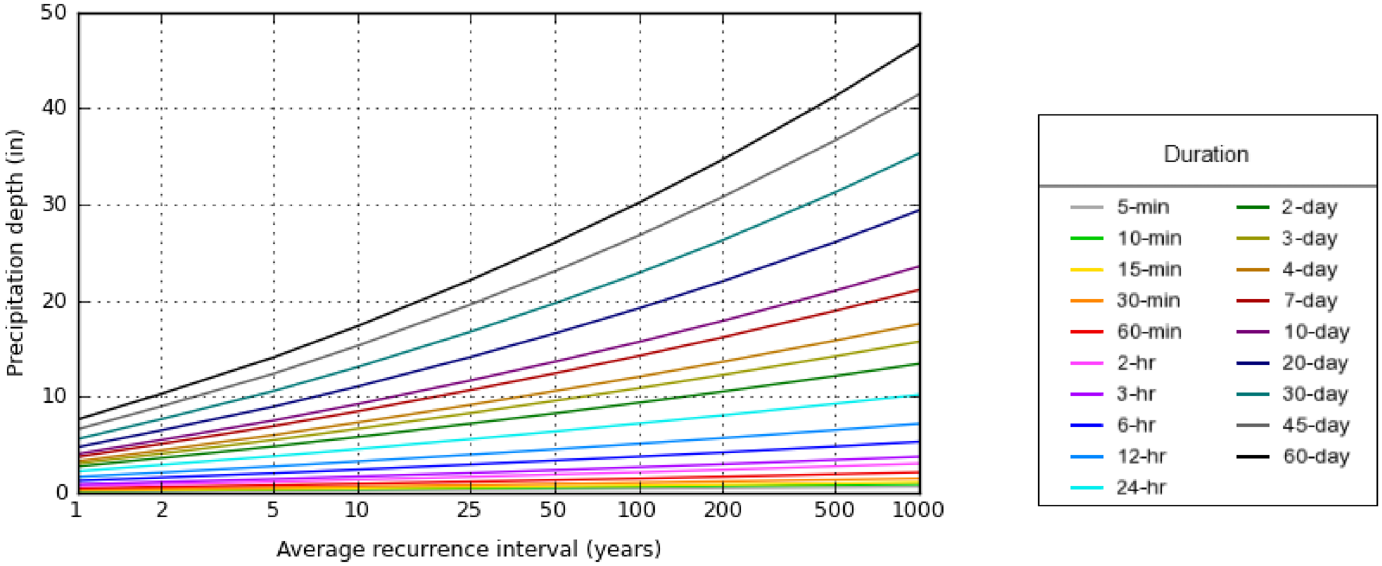
PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 34.0358°, Longitude: -117.9364°





NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Thu Sep 8 21:07:54 2022

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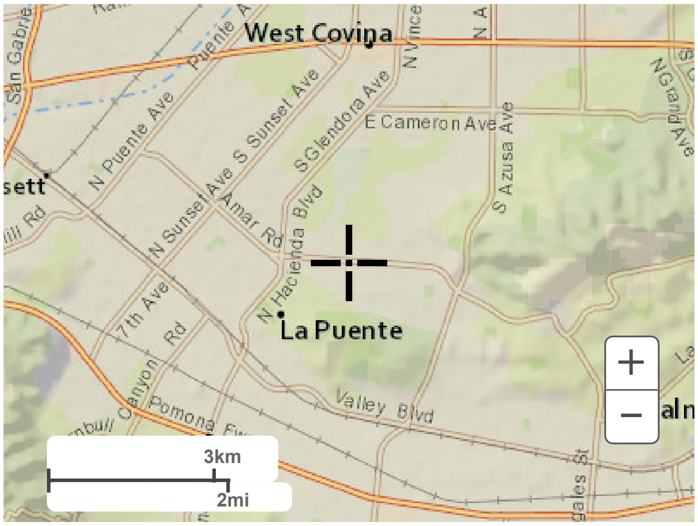
Maps & aerials

Small scale terrain



Large scale terrain

Large scale map

Large scale aerial

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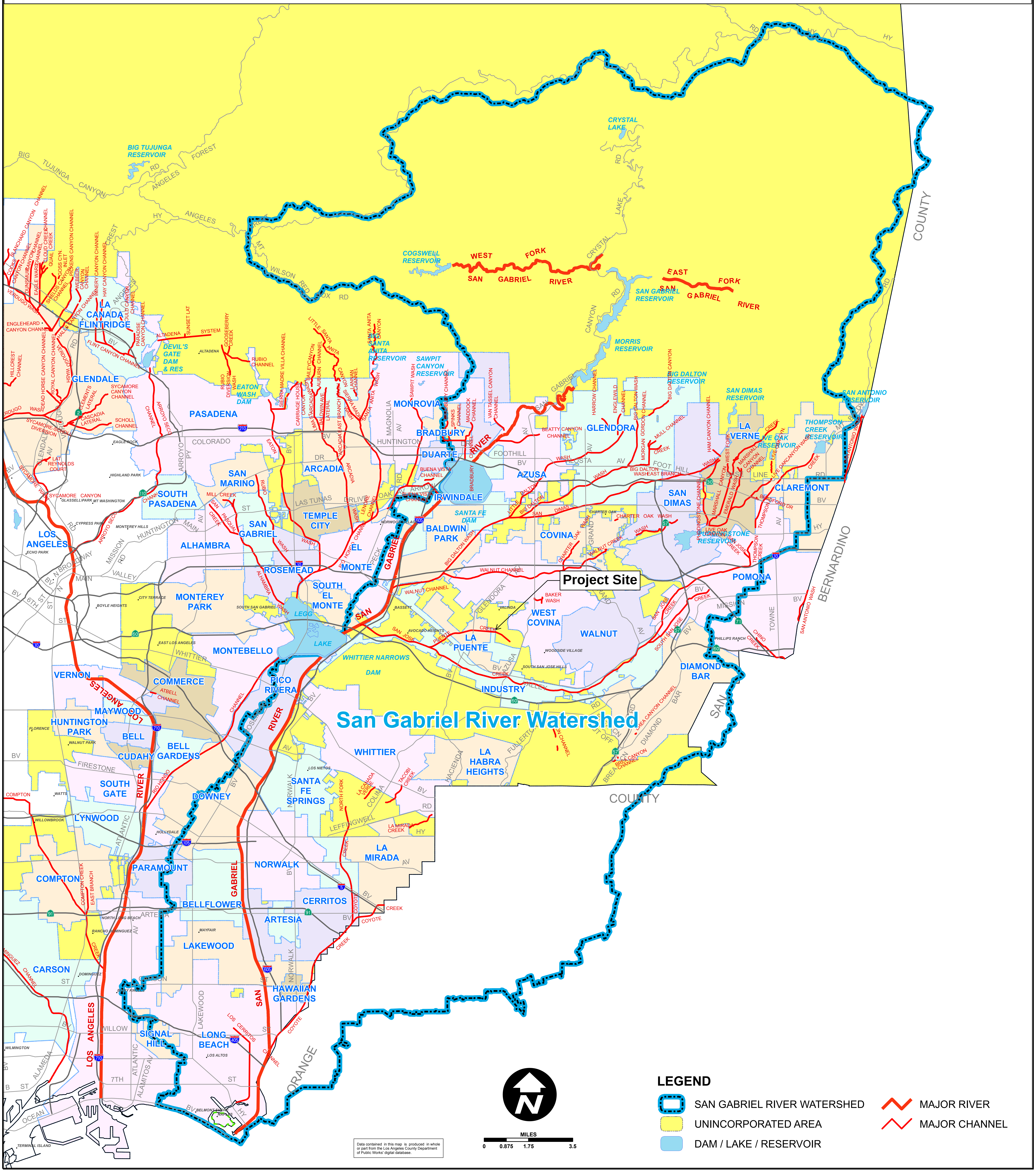
US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

COUNTY OF LOS ANGELES

SAN GABRIEL RIVER WATERSHED



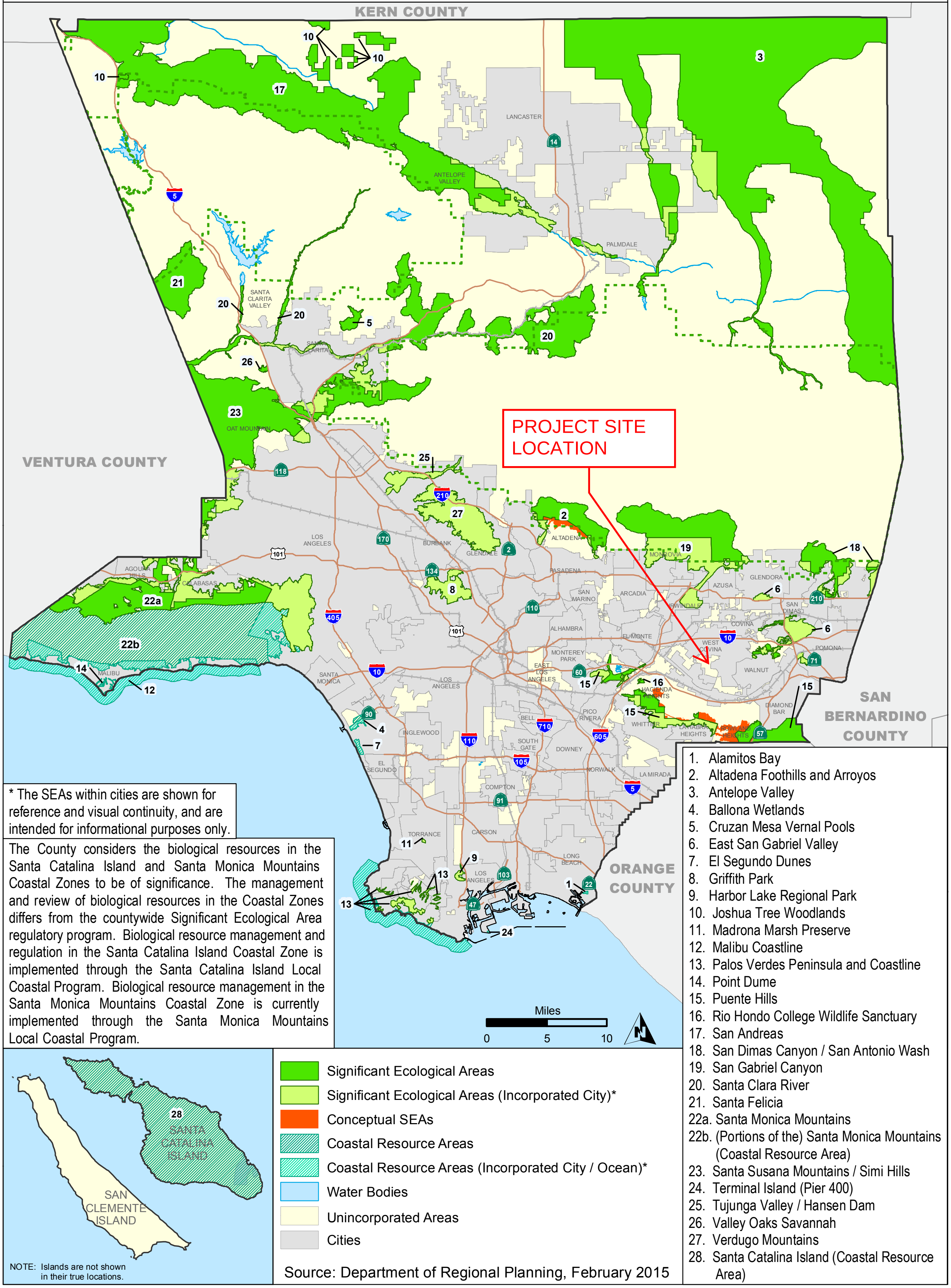
Data contained in this map is produced in whole or part from the Los Angeles County Department of Public Works' digital database.

REF: \\pwgisd02\mpmgis$\MPMGIS\projects\mpm\gismaps\wk_2627\SanGabrielRiver_wtrshed.mxd DATE: 08/21/07

Mapping & Property Management Division, Mapping & GIS Services Section

Significant Ecological Areas and Coastal Resource Areas Policy Map

Figure 9.3



* The SEAs within cities are shown for reference and visual continuity, and are intended for informational purposes only.

The County considers the biological resources in the Santa Catalina Island and Santa Monica Mountains Coastal Zones to be of significance. The management and review of biological resources in the Coastal Zones differs from the countywide Significant Ecological Area regulatory program. Biological resource management and regulation in the Santa Catalina Island Coastal Zone is implemented through the Santa Catalina Island Local Coastal Program. Biological resource management in the Santa Monica Mountains Coastal Zone is currently implemented through the Santa Monica Mountains Local Coastal Program.

- 🟩 Significant Ecological Areas
- 🟩 Significant Ecological Areas (Incorporated City)*
- 🟧 Conceptual SEAs
- ▨ Coastal Resource Areas
- ▨ Coastal Resource Areas (Incorporated City / Ocean)*
- 🟦 Water Bodies
- ⬜ Unincorporated Areas
- ⬜ Cities

Source: Department of Regional Planning, February 2015

1. Alamitos Bay
2. Altadena Foothills and Arroyos
3. Antelope Valley
4. Ballona Wetlands
5. Cruzan Mesa Vernal Pools
6. East San Gabriel Valley
7. El Segundo Dunes
8. Griffith Park
9. Harbor Lake Regional Park
10. Joshua Tree Woodlands
11. Madrona Marsh Preserve
12. Malibu Coastline
13. Palos Verdes Peninsula and Coastline
14. Point Dume
15. Puente Hills
16. Rio Hondo College Wildlife Sanctuary
17. San Andreas
18. San Dimas Canyon / San Antonio Wash
19. San Gabriel Canyon
20. Santa Clara River
21. Santa Felicia

22a. Santa Monica Mountains

22b. (Portions of the) Santa Monica Mountains (Coastal Resource Area)

23. Santa Susana Mountains / Simi Hills
24. Terminal Island (Pier 400)
25. Tujunga Valley / Hansen Dam
26. Valley Oaks Savannah
27. Verdugo Mountains
28. Santa Catalina Island (Coastal Resource Area)

Lesson 2: Appendix B

Potential Pollutants Generated by Land Use Type

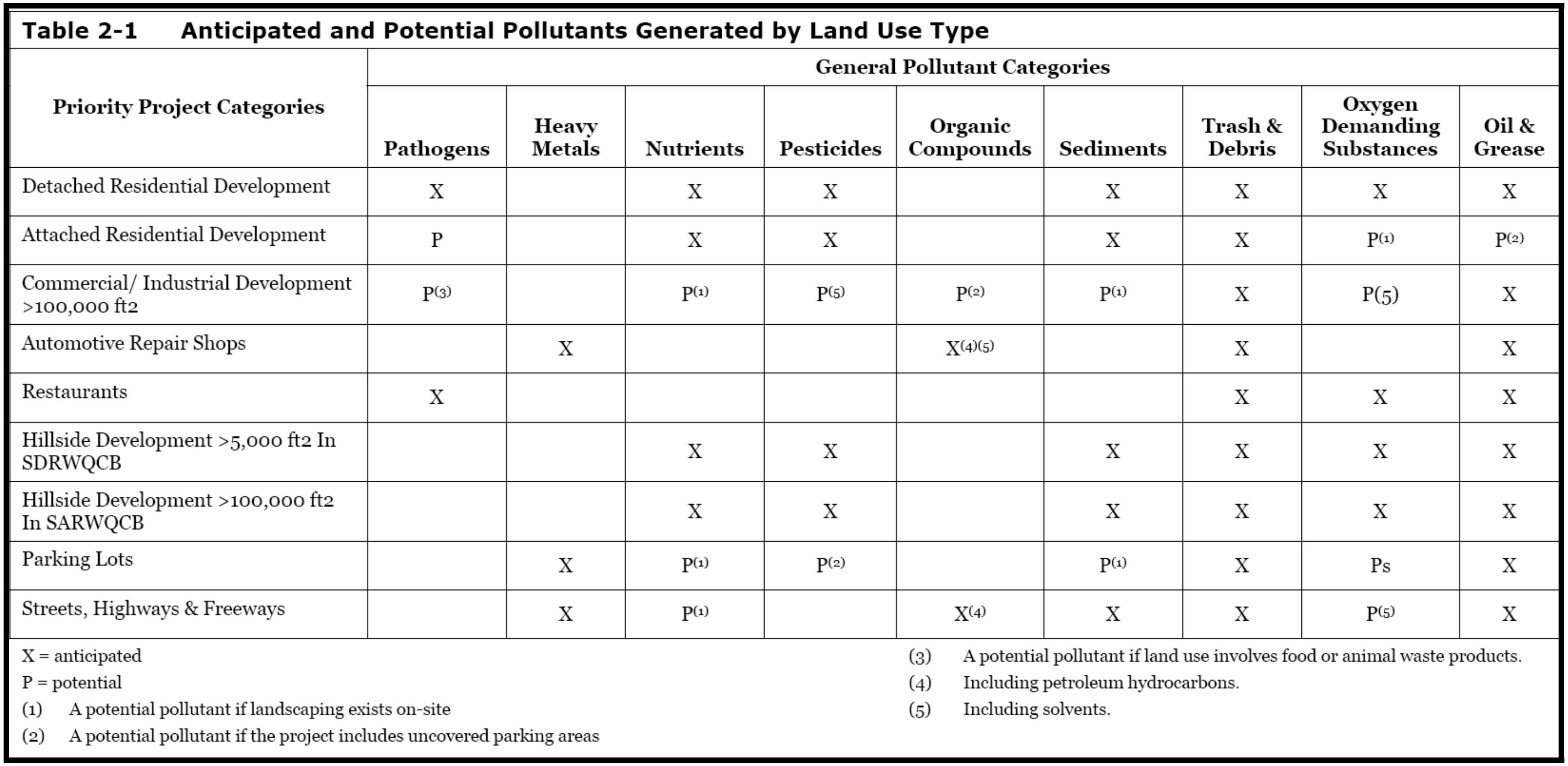


Table 2-1 Anticipated and Potential Pollutants Generated by Land Use Type

Priority Project Categories	General Pollutant Categories								
	Pathogens	**Heavy Metals**	**Nutrients**	**Pesticides**	**Organic Compounds**	**Sediments**	**Trash & Debris**	**Oxygen Demanding Substances**	**Oil & Grease**
Detached Residential Development	X		X	X		X	X	X	X
Attached Residential Development	P		X	X		X	X	P(1)	P(2)
Commercial/ Industrial Development >100,000 ft2	P(3)		P(1)	P(5)	P(2)	P(1)	X	P(5)	X
Automotive Repair Shops		X			X(4)(5)		X		X
Restaurants	X						X	X	X
Hillside Development >5,000 ft2 In SDRWQCB			X	X		X	X	X	X
Hillside Development >100,000 ft2 In SARWQCB			X	X		X	X	X	X
Parking Lots		X	P(1)	P(2)		P(1)	X	Ps	X
Streets, Highways & Freeways		X	P(1)		X(4)	X	X	P(5)	X

X = anticipated
P = potential
(1) A potential pollutant if landscaping exists on-site
(2) A potential pollutant if the project includes uncovered parking areas
(3) A potential pollutant if land use involves food or animal waste products.
(4) Including petroleum hydrocarbons.
(5) Including solvents.

Source: California Stormwater Quality Association (CASQA)

Attachment G

Educational Materials

Are You a Litter Bug and Don't Know It?

Take our quiz!

Have you ever...

- Dropped a cigarette butt or trash on the ground?
- Failed to pick up after your dog while out on a walk?
- Overwatered your lawn after applying fertilizers/pesticides?
- Disposed of used motor oil in the street, gutter or garbage?

If you answered **yes** to any of these actions, then **YOU ARE A LITTER BUG**!

Each of these behaviors contribute to stormwater pollution, which contaminates our ocean and waterways, kills marine life and causes beach closures.

You can become part of the solution!
To find out how, flip this card over.

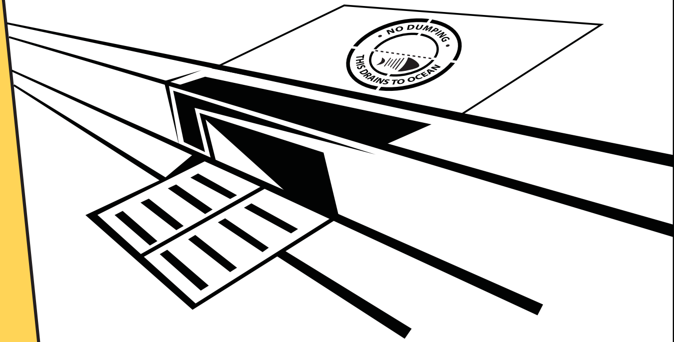
For more information, call or visit:

1 (888) CLEAN LA
www.888CleanLA.com

PROJECT Pollution PREVENTION

Follow these simple steps to prevent stormwater pollution:

- Put your garbage where it belongs — in the trash can.
- Pick up after your dog when out on a walk.
- Reduce pesticide and fertilizer use; don’t overwater after application or apply if rain is forecast.
- Dispose of used motor oil at an oil recycling center or at a free Household Hazardous Waste/E-Waste collection event.



A message from the County of Los Angeles Department of Public Works.
Printed on recycled paper.

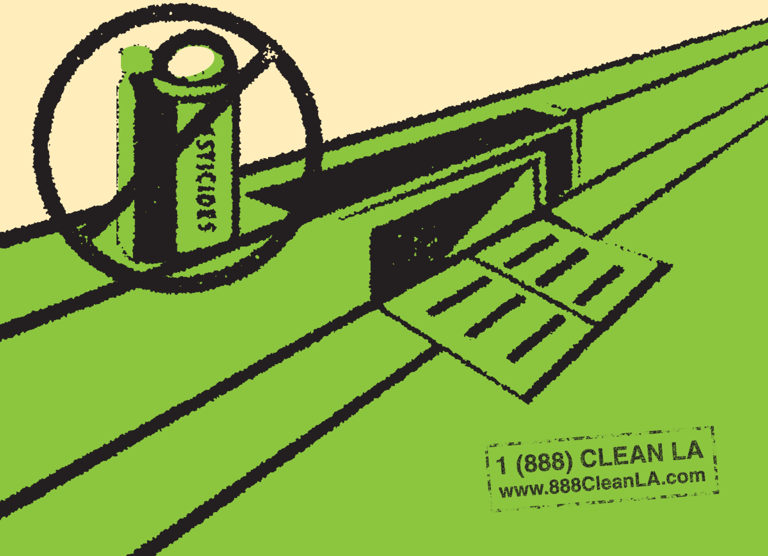
A Yard is a Terrible Thing to Waste!

Storm drains are for rain…**not yard waste.**

Residential yard waste represents about **13 percent** of the total waste generated in L.A. County.

Pesticides, fertilizer and yard waste such as leaves and mowed grass wash from the ground and streets into storm drains and flow straight to the ocean — **untreated.**

Remember to use pesticides and fertilizer wisely and pick-up yard waste.



1 (888) CLEAN LA
www.888CleanLA.com

Tips For Yard Care:

L.A. County residents can help solve the stormwater pollution problem by taking these easy steps…

- Do not over-fertilize and do not use fertilizer or pesticides near ditches, gutters or storm drains.
- Do not use fertilizer or pesticides before a rain.
- Follow the directions on the label carefully.
- Use pesticides sparingly — more is not better. "Spot" apply, rather than "blanket" apply.
- When watering your lawn, use the least amount of water possible so it doesn't run into the street carrying pesticides and other chemicals with it.
- Use non-toxic products for your garden and lawn whenever possible.
- If you must store pesticides or fertilizer, make sure they are in a sealed, water-proof container in a covered area to prevent runoff.
- Do not blow, sweep, hose or rake leaves or other yard trimmings into the street, gutter or storm drain.

PROJECT
Pollution
PREVENTION

A message from the County of Los Angeles Department of Public Works.
Printed on recycled paper.

Storm Drains are for Rain...

More than 200,000 times each month, lawns and gardens throughout LA County are sprayed with pesticides. Overwatering or rain causes pesticides on leaves and grass to flow into the storm drain and to the ocean — untreated.

Please use pesticides wisely, not before a rain, and water carefully.

...not pesticides.

1(888)CLEAN LA
www.888CleanLA.com

PROJECT
Pollution
PREVENTION

Pesticide Tips:

You can keep your lawn and garden green and at the same time solve the pollution problem by taking these easy steps...

- Never dispose of lawn or garden chemicals in storm drains. This is called illegal dumping. Take them to a household hazardous waste roundup. Call 1(888)CLEAN LA or visit www.888CleanLA.com to locate a roundup or collection facility near you.
- More is not better. Use pesticides sparingly. “Spot” apply, rather than “blanket” apply.
- Read labels! Use only as directed.
- Use non-toxic products for your garden and lawn whenever possible.
- If you must store pesticides, make sure they are in a sealed, water-proof container that cannot leak.
- When watering your lawn, use the least amount of water possible so it doesn’t run into the street and carry pesticide chemicals with it. Don’t use pesticides before a rain storm. You will not only lose the pesticide, but also will be harming the environment.

PROJECT
Pollution
PREVENTION

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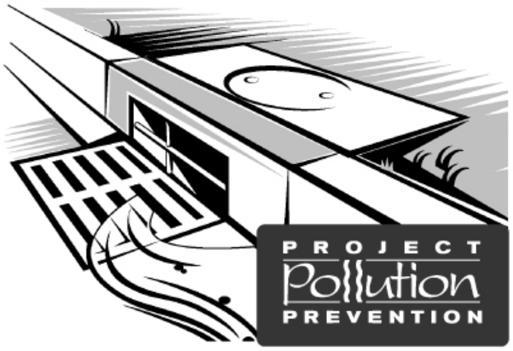

Storm Drains are for Rain...

More than 200,000 times each month, lawns and gardens throughout LA County are sprayed with pesticides. Overwatering or rain causes pesticides on leaves and grass to flow into the storm drain and to the ocean — untreated.

Please use pesticides wisely, not before a rain, and water carefully.

...not pesticides.

1(888)CLEAN LA
www.888CleanLA.com

PROJECT
Pollution
PREVENTION

Pesticide Tips:

You can keep your lawn and garden green and at the same time solve the pollution problem by taking these easy steps...

- Never dispose of lawn or garden chemicals in storm drains. This is called illegal dumping. Take them to a household hazardous waste roundup. Call 1(888)CLEAN LA or visit www.888CleanLA.com to locate a roundup or collection facility near you.
- More is not better. Use pesticides sparingly. “Spot” apply, rather than “blanket” apply.
- Read labels! Use only as directed.
- Use non-toxic products for your garden and lawn whenever possible.
- If you must store pesticides, make sure they are in a sealed, water-proof container that cannot leak.
- When watering your lawn, use the least amount of water possible so it doesn’t run into the street and carry pesticide chemicals with it. Don’t use pesticides before a rain storm. You will not only lose the pesticide, but also will be harming the environment.

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Storm Drains are for Rain...

More than 50% of the automotive oil sold to do-it-yourself oil changers is not recycled. There are more than 600 State-certified used oil collection centers within Los Angeles County.

Never dispose of automotive fluids, recyclable products, or household hazardous wastes into the street or gutter. Take them to your local auto repair station, recycling center or a household hazardous waste roundup.

...they're not recycling centers.

1(888)CLEAN LA
www.888CleanLA.com

PROJECT Pollution PREVENTION

Recycling Tips:

You can help keep your community clean, protect our area waterways and make the beaches safe for ocean swimmers by putting recyclable materials where they belong — at a recycling center or household hazardous waste roundup. Never throw or pour anything into the streets or gutters…

- When changing vehicle fluids – transmission, hydraulic and motor oil, brake and radiator fluid – drain them into a drip pan to avoid spills. Do not combine these fluids. Do not dispose of them in the street, gutter or in the garbage. It is illegal.
- Recycle all used vehicle fluids. Call 1(888)CLEAN LA or visit www.888CleanLA.com for the location of a center that recycles these fluids, or for the location of a local household hazardous waste Roundup.
- Other materials that should be taken to a household hazardous waste Roundup are: paint and paint-related materials, household cleaners, batteries, pesticides and fertilizers, pool chemicals, and aerosol products.
- Aluminum, glass, plastic and newspapers should be placed in your curbside recycling bin or taken to a local recycling center.

Printed on recycled paper

PROJECT Pollution PREVENTION

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...not automotive fluids.

PROJECT
Pollution
PREVENTION

1(888)CLEAN LA
www.888CleanLA.com

Car Care Tips:

You can keep your car running smoothly and efficiently, and at the same time help prevent stormwater pollution by taking these easy steps…

- When changing vehicle fluids — motor oil, transmission, brake and radiator fluids — drain them into separate drip pans to avoid spills. Do not combine these fluids. Do not dispose of these fluids in the street, gutter or garbage. It is illegal.
- If a spill occurs, use kitty litter, sawdust or cornmeal for cleanup. Do not hose or rinse with water.
- Recycle all used vehicle fluids. Call 1(888)CLEAN LA or visitwww.888CleanLA.com for the location of an auto parts store or gas station that recycles these fluids, or for the location of a local household hazardous waste Roundup.
- Regularly check and maintain your car to keep it running safely and efficiently. Water runoff from streets, parking lots and driveways picks up oil and grease drippings, asbestos from brake linings, zinc from tires and organic compounds and metals from spilled fuels and carries them to the ocean.

Printed on recycled paper

PROJECT
Pollution
PREVENTION

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PROJECT
Pollution
PREVENTION

Don't Paint the Town Red!

Storm drains are for rain…
they're not for paint disposal.

More than **197,000** times each month, L.A. County residents wash their dirty paint brushes under an outdoor faucet.

This dirty rinse water flows into the street, down the storm drain and straight to the ocean — **untreated**.

Remember to clean water-based paint brushes in the sink, rinse oil-based paint brushes with paint thinner, and take old paint and paint-related products to a Household Hazardous Waste/E-Waste collection event.

1 (888) CLEAN LA
www.888CleanLA.com

Tips for Paint Clean-Up:

L.A. County residents can help solve the stormwater pollution problem by taking these easy steps when working with paint and paint-related products…

- Never dispose of paint or paint-related products in the gutters or storm drains. This is called illegal dumping. Take them to a Household Hazardous Waste/E-Waste collection event. Call 1 (888) CLEAN LA or visit www.888CleanLA.com to locate an event near you.
- Buy only what you need. Reuse leftover paint for touch-ups or donate it to a local graffiti abatement program. Recycle or use excess paint.
- Clean water-based paint brushes in the sink.
- Oil-based paints should be cleaned with paint thinner. Filter and reuse paint thinner. Set the used thinner aside in a closed jar to settle-out paint particles.
- Store paints and paint-related products in rigid, durable and watertight containers with tight-fitting covers.

PROJECT
Pollution
PREVENTION

A message from the County of Los Angeles Department of Public Works.
Printed on recycled paper.

APPENDIX I

Hydrology and Hydraulics Study for 15940-16016 Amar Road and 15940-16040 Kaplan Avenue

City of Industry
Amar Industry Hills Development
Initial Study/Mitigated Negative Declaration
November 30, 2023

WARE MALCOMB
architecture | planning | interiors | branding | civil

HYDROLOGY & HYDRAULICS STUDY

FOR:
15940-16016 Amar Rd. and 15940-16040 Kaplan Ave.
Accessor Parcel Number: 8250-001-011, 8250-012-017
City of Industry, Los Angeles County, California 91744

Prepared for:
Amar Industry Hills, LLC
444 S. Flower St. Ste. 2100

Los Angeles, CA 90071

Project No: IRV22-0084-00

LUCAS A. CORSBIE
No. 72588

Prepared by: ______________________ 11/16/2022
Signature Date

Engineer: Luke Corsbie Registration No. 72588

Ware Malcomb
10 Edelman
Irvine CA 92618
Phone: (949) 660-9128

Prepare Date: November 16, 2022

Contents

I. Project Description

i. Background

The purpose of this drainage study is to provide an analysis of the existing and proposed conditions to support the grading and drainage design for the project, and to understand if there may exist any adverse impacts to downstream facilities as a result of the proposed development.

The project site is located at 15940-16016 Amar Road and 15940-16040 Kaplan Avenue within the City of Industry. The total project area is 10.091 acres and entire site will be disturbed. There are seven existing, developed lots that will be lot-tied into a single lot. The site area is bounded by Echelon Ave to the east, Amar Road to the north, an existing 3.8± acre commercial building to the west, and Puente Creek to the south. The site's general location is shown in the Vicinity Map in Appendix A.

The proposed project consists of the construction of a 198,000 SF industrial building with truck docks, trailer and car parking areas, driveways, and landscaped areas surrounding the proposed building in the center of the site.

The existing project area is 90.0% impervious and the proposed project area is 88.7% impervious.

ii. Existing Drainage Condition

In the existing condition, the site generally slopes in a westerly direction, with runoff flowing away from each of the existing buildings and concentrating into the gutter systems throughout the site. Several ridgelines exist on the site, which divide drainage into three distinct DMAs. DMA A encompasses approximately 3.241 acres in the northern portion of the site, with runoff draining from the eastern edge to the western edge and flowing onto the neighboring property to the west via the existing gutter system with connects the two properties. DMA B encompasses approximately 5.641 acres in the central portion of the site, with runoff draining towards Kaplan Avenue and eventually collecting in an existing storm drain catch basin in the Kaplan Avenue cul-de-sac. This catch basin also captures offsite flows from Echelon Ave. DMA C encompasses approximately 1.209 acres in the southern portion of the site. Runoff here drains westerly along the site's southern property line to an existing catch basin located in the southwest corner. This catch basin also collects the runoff from DMA B via an existing storm drain line that connects the two existing catch basin, and discharges to the Puente Creek Channel. The Existing Hydrology Exhibit can be found in Appendix C.

In the existing condition, runoff from the site is first conveyed to Puente Creek, then to San Jose Creek, next to the San Gabriel River, and finally into the Pacific Ocean.

iii. Proposed Drainage Condition

In the proposed condition, the site's drainage patterns will mimic the existing condition to the maximum extent practicable. Similarly to the existing condition, the proposed drainage condition features three separate DMAs, each with their own runoff flow paths. DMA A encompasses approximately 3.661 acres of the northern portion of the site. Runoff from this DMA is conveyed by the combined valley gutter and curb & gutter system along the northern/northwestern edges of the site into a series of grate inlet catch basins, which connect to a storm drain main. Runoff is then discharged into an underground storage chamber near the northwestern corner of the proposed building. This collected runoff is subsequently treated by a proprietary biotreatment BMP before being pumped out to a proposed parkway drain and discharged into Amar Road. DMA B encompasses approximately 3.619 acres of the middle portion of the site. Runoff from this DMA is also conveyed by the combined valley gutter and curb & gutter system along the western and eastern edges of the site into a series of grate inlet catch basins. These are connected to a separate storm drain main from DMA A, and this runoff is conveyed to another underground storage chamber near the southwestern corner of the site. Runoff is finally treated by another proprietary biotreatment BMP before being conveyed into the existing 33" RCP storm drain at the site's southwestern corner, and finally discharged into Puente Creek. DMA C encompasses approximately 2.811 acres of the southern portion of the site, all of the runoff that is left uncaptured by the two underground storage chambers. This runoff mainly drains from the proposed truck dock and loading area along the proposed building's southern face. Runoff drains southerly towards the southernmost curb and gutter, and discharges into the bioretention basin where it collects and is treated. Eventually, this runoff is collected by the subdrain network and discharged to the same 33" RCP storm drain as the runoff from DMA B and finally discharged into Puente Creek, as well. To prevent the comingling of onsite and offsite flows, a new cross gutter at the proposed driveway on Echelon Avenue will be constructed to convey the offsite flows from Echelon Avenue southerly. Additionally, the driveways at the site's northern edge along Amar Road will be constructed with ridgelines so as to collect on site runoff and allow off site runoff to continue flowing within the existing public curb and gutter system along Amar Road. The Proposed Hydrology Exhibit can be found in Appendix E.

II. Hydrology Analysis

i. Design Criteria and Methods

The Modified Rational Method Analysis was performed using the HydroCalc 1.0.3 software to analyze the existing and proposed peak discharges and times of concentration for the 10-year and 50-year events. The Los Angeles County Hydrology Manual was used to establish the criteria for flood protection levels. These results were used for supporting hydraulic calculations. The variables taken into consideration in the computation include rainfall, soil type, and percent imperviousness – characteristics of flow conveyance and time of concentration.

Yolo Clay Loam, Soil Number 17, was used in the calculations. This was determined based on the Los Angeles County Hydrology Manual, Appendix C – Soil Type & Runoff Coefficient Data. The Soil Map that was utilized for this project can be found in Appendix B of this report. The site's 50-year, 24-hour rainfall depth is 6.6 inches.

A tabulation of the existing condition and proposed condition drainage areas and their percent imperviousness can be found below:

Area

Drainage Area	Existing Area (acres)	Existing Imperviousness	Proposed Area (acres)	Proposed Imperviousness
DMA A	3.241	0.906	3.661	0.935
DMA B	5.641	0.879	3.619	0.942
DMA C	1.209	0.983	2.811	0.754
TOTAL	10.091	0.900	10.091	0.887

A tabulation of the HydroCalc results can be found below. See Appendices D and F for the supporting calculations.

Discharge

Model Condition / Area		Existing (CFS)	Proposed (CFS)	% Change
Q_{10}	DMA A	5.394	6.365	+18.00%
	DMA B	8.413	5.815	-30.88%
	DMA C	2.206	6.487	+194.06%
	Total	**16.013**	**19.264**	**+20.30%**
Q_{50}	DMA A	8.281	9.837	+18.79%
	DMA B	13.208	8.844	+33.04%
	DMA C	3.435	9.962	+190.01%
	Total	24.924	28.643	+14.92%

Runoff

Model Condition / Area		Existing (cu-ft)	Proposed (cu-ft)	% Change
V_{10}	DMA A	45,969	53,151	+15.62%
	DMA B	78,249	52,833	-32.48%
	DMA C	18,223	34,945	+91.76%
	Total	142,441	140,929	-1.06%
V_{50}	DMA A	64,788	74,758	+15.39%
	DMA B	110,504	74,276	-32.78%
	DMA C	25,549	49,849	+95.11%
	Total	200,841	198,883	-1.00%

Overall, the proposed condition flows are slightly higher than the existing condition flows. The proposed condition slightly decreases runoff volume compared to the existing condition. The underground storage chambers as well as the biofiltration basin will serve to reduce peak flows for the design storm events, and detain excess runoff during larger events, which will overflow onto either Amar Road or Puente Creek via separate parkway drains.

III. Hydraulic Analysis

The proposed drainage facilities will be sized using the 10-year design storm results outlined in the above section. The following table was utilized as a guide for sizing storm drain pipes assuming full flow capacities with a roughness coefficient of 0.010 and pipe slope of 0.5%.

Pipe Size (inches)	Full Flow Capacity (cfs)
6	0.52
8	1.11
10	2.01

There are twelve proposed catch basins throughout the site. In the final design, the proposed catch basins will be sized for the 10-year storm event by calculating the flow per area and multiplying by the area draining to each catch basin, utilizing the StormCAD software.

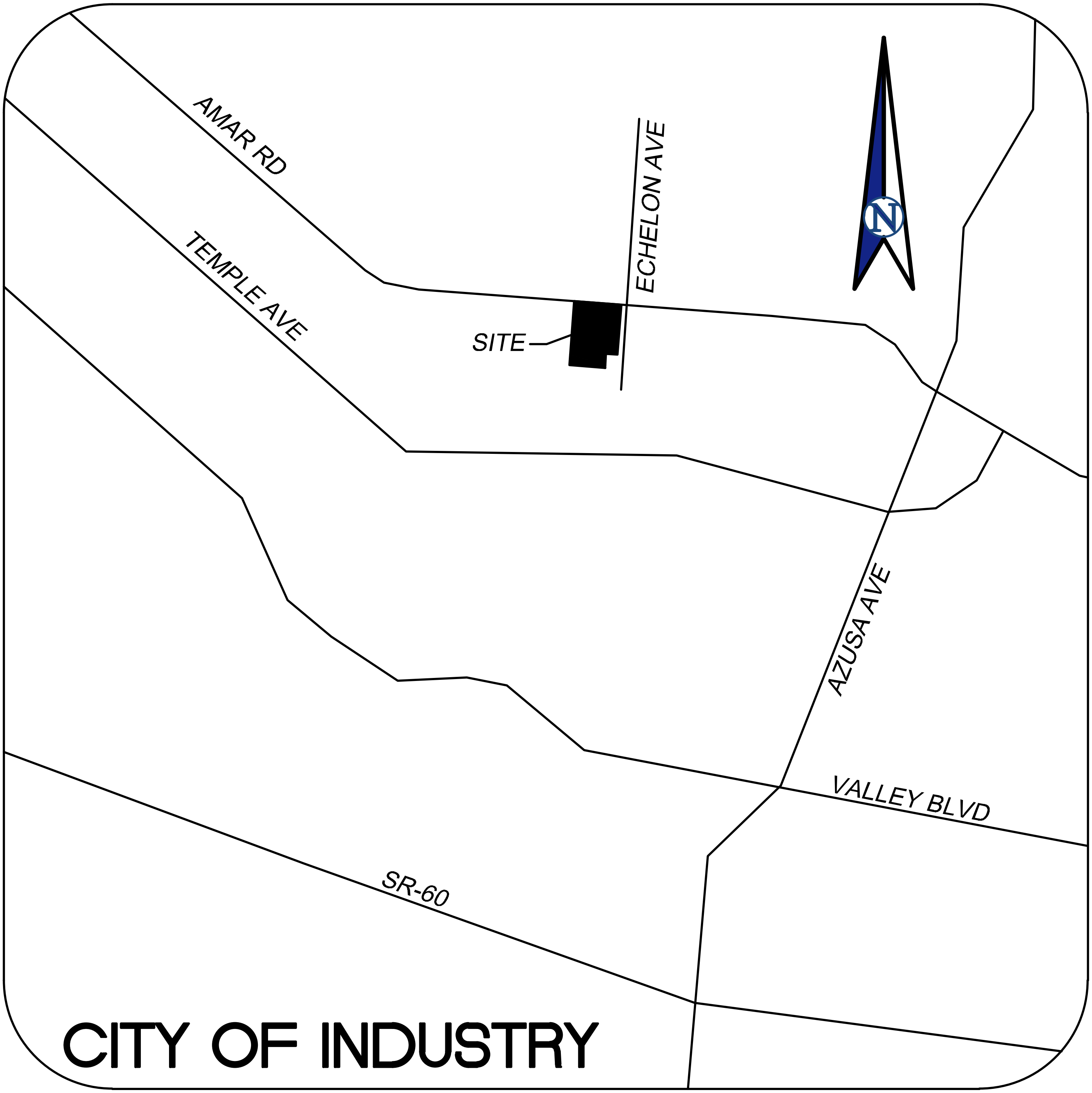
The FlowMaster software by Bentley was used for hydraulic calculations for the catch basins and pipes. Printouts for these calculations can be found in Appendix G.

IV. Conclusion

The results of this Hydrology Study indicate that slight increases in peak flow will occur in the proposed condition, but the overall volume of runoff will decrease due to the reduction of overall imperviousness on the site. The proposed drainage condition will mimic the existing drainage condition to the maximum extent practicable, while providing BMPs for sufficient conveyance, storage and treatment of on-site stormwater runoff. Hydraulic calculations demonstrate the required pipe sizing for proposed storm drain piping on site. In the final design, catch basins will be sized for the 10-year storm event.

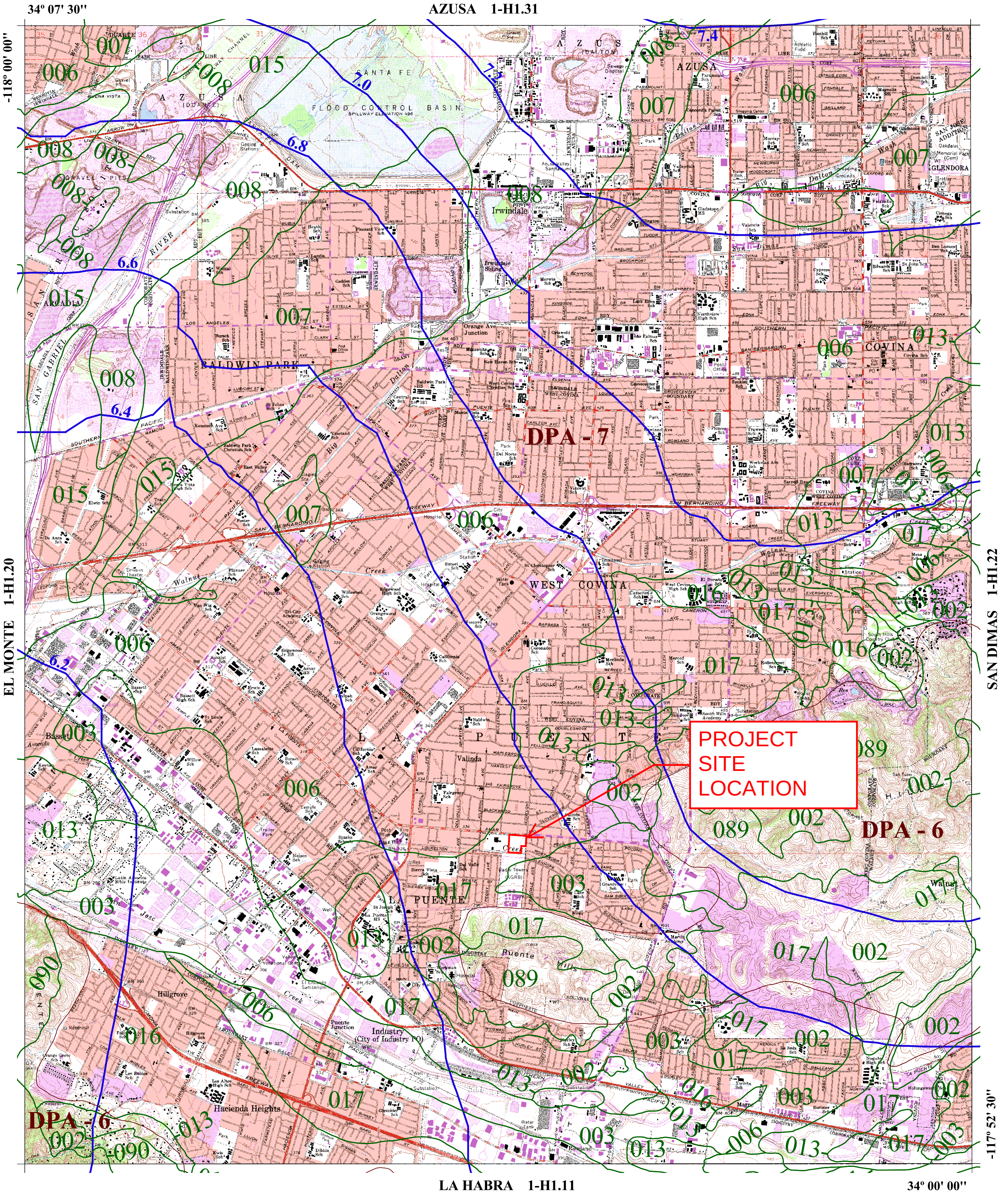
Appendix A – Vicinity Map

FIGURE 1 - VICINITY MAP



NOT TO SCALE

Appendix B – Reference Maps



016 SOIL CLASSIFICATION AREA

7.2 INCHES OF RAINFALL

DPA - 6 DEBRIS POTENTIAL AREA

25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

BALDWIN PARK
50-YEAR 24-HOUR ISOHYET

1-H1.21

LOS ANGELES COUNTY PUBLIC WORKS Public Service That Works

Soil Identification Table

Number	Name	Original Name
2	ALTAMONT CLAY LOAM	A
3	CHINO SILT LOAM	CS-1
4	DIABLO CLAY LOAM	DY
5	HANFORD FINE SANDY LOAM	HF
6	HANFORD FINE SANDY LOAM	HF-1
7	HANFORD GRAVELLY SANDY LOAM	HG
8	HANFORD SILT LOAM	HN
9	MONTEZUMA CLAY ADOBE	M
10	OAKLEY FINE SAND	OS
11	PLACENTIA LOAM	PL
12	RAMONA CLAY LOAM	RC- 1
13	RAMONA LOAM	RO
14	RAMONA SANDY LOAM	RS
15	TUJUNGA FINE SANDY LOAM	TF
16	YOLO LOAM	Y
17	YOLO CLAY LOAM	YC
18	YOLO FINE SANDY LOAM	YF
19	YOLO GRAVELLY SANDY LOAM	YG
20	YOLO SANDY LOAM	YS
21	SANTA MONICA MOUNTAINS	SMM-1
22	SANTA MONICA MOUNTAINS	SMM-2
23	SANTA MONICA MOUNTAINS	SMM-3
24	SANTA MONICA MOUNTAINS	SMM-4
25	SANTA MONICA MOUNTAINS	SMM-5
26	SANTA MONICA MOUNTAINS	SMM-6
27	SANTA MONICA MOUNTAINS	SMM-7
28	SANTA MONICA MOUNTAINS	SMM-8
29	SANTA MONICA MOUNTAINS	SMM-9
30	SANTA MONICA MOUNTAINS	SMM-10
31	SANTA MONICA MOUNTAINS	SMM- 11
32	SANTA MONICA MOUNTAINS	SMM-12
33	SANTA MONICA MOUNTAINS	SMM-13
34	SANTA MONICA MOUNTAINS	SMM-14
35	SANTA MONICA MOUNTAINS	SMM-15
36	SANTA MONICA MOUNTAINS	SMM-16
37	SANTA MONICA MOUNTAINS	SMM- 17
38	SANTA MONICA MOUNTAINS	SMM- 18

$C_D = (0.9 * IMP) + (1.0 - IMP) * C_U$

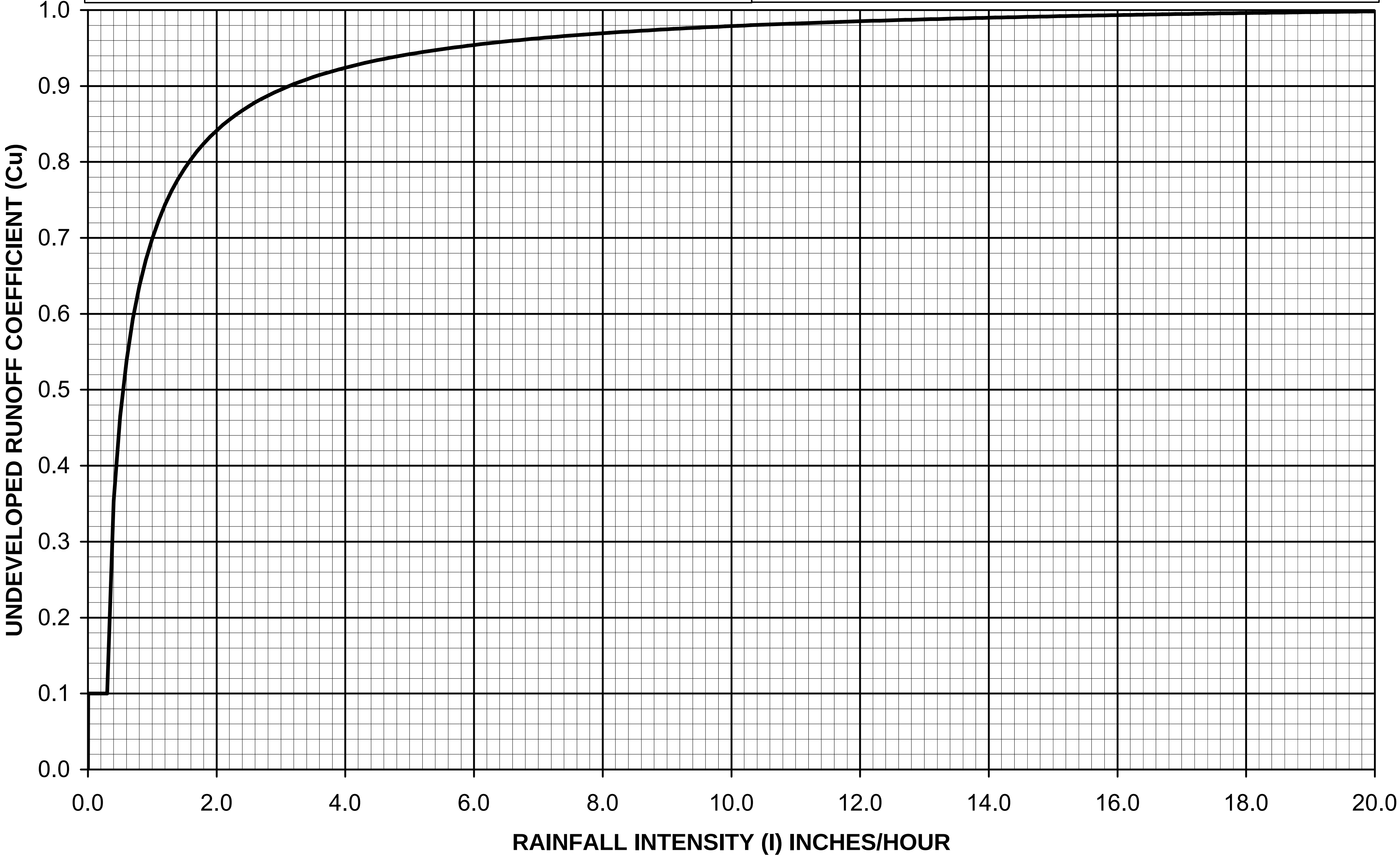
Where: C_D = Developed Runoff Coefficient

IMP = Proportion Impervious

C_U = Undeveloped runoff coefficient

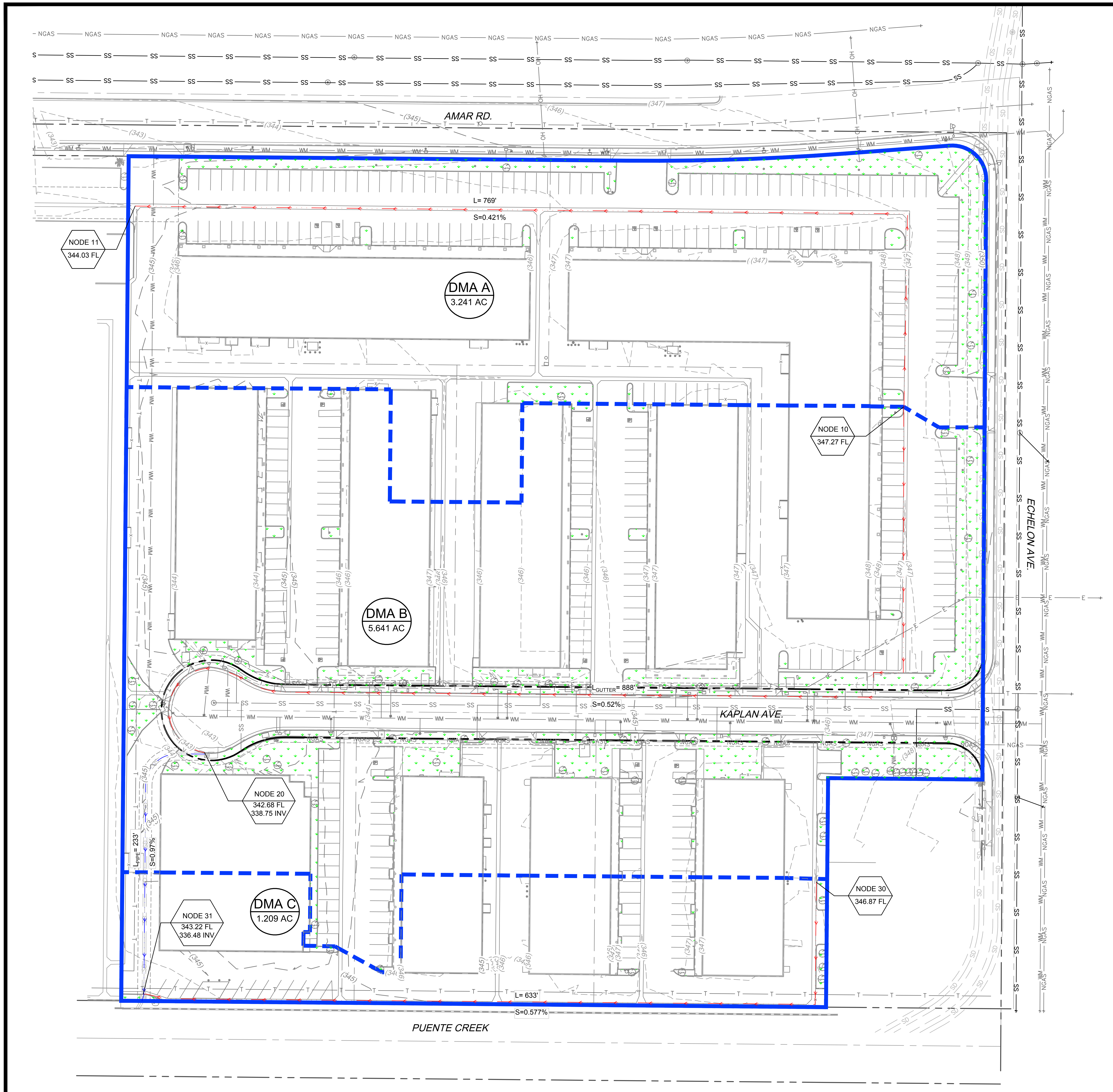
Los Angeles County Department of Public Works

RUNOFF COEFFICIENT CURVE
SOIL TYPE NO. 017



Appendix C – Existing Hydrology Exhibit

CAUTION: IF THIS SHEET IS NOT 24"x36" IT IS A REDUCED PRINT



LEGEND:

SUBAREA
ACRES

NODE #
ELEV.

L= FLOW PATH LENGTH

PROPERTY LIMIT

SUBAREA BOUNDARY

SURFACE FLOW PATH

PIPE FLOW PATH

PROPOSED STORM DRAIN

🟩 EXISTING PERVIOUS AREA

EXISTING

—(5280)— MAJOR CONTOUR

—(5278)— MINOR CONTOUR

PROJECT INFORMATION

NOT LOCATED IN AN AREA UNDER THE CAPITAL FLOOD PROTECTION CONDITIONS REQUIREMENT
--> URBAN FLOOD LEVEL OF PROTECTION CONDITION (25 YEAR)

FROM LOS ANGELES COUNTY PUBLIC WORKS 1-H1.21 HYDROLOGIC MAP,
50-YEAR 24-HOUR RAINFALL DEPTH = 6.6 IN
SOIL TYPE 17 FIRE FACTOR = 0

EXISTING HYDROLOGY

AREA	IMPERVIOUS FRACTION	Q_{10} (CFS)	Q_{50} (CFS)	V_{10} (CU-FT)	V_{50} (CU-FT)
DMA A	0.906	5.394	8.281	45,969	64,788
DMA B	0.879	8.413	13.208	78,249	110,504
DMA C	0.983	2.206	3.435	18,223	25,549
TOTAL	0.900	16.013	24.924	142,441	200,841

SCALE: 1" = 40'

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WARE MALCOMB
LEADING DESIGN FOR COMMERCIAL REAL ESTATE

10 edelman
irvine, ca 92618
p 949.660.9128
waremalcomb.com

LUCAS A. CORSBIE
No. 72588
Lucas Corsbie
11/16/2022

FOR AND ON BEHALF OF WARE MALCOMB

HINES INDUSTRY HILLS
HYDROLOGY STUDY

15940-16012 AMAR RD. AND 15940-16065 KAPLAN AVE
CITY OF INDUSTRY, CA 91744

EXISTING HYDROLOGY EXHIBIT

NO.	DATE	REMARKS

JOB NO.:	IRV22-0084
PA / PM:	L. CORSBIE
DESIGNED:	J. PARK
DATE:	11/16/22
PLOT DATE:	11/16/22

SHEET
1

Sheet 1 of 1

Appendix D – Rational Method Calculations – Existing Condition

Peak Flow Hydrologic Analysis

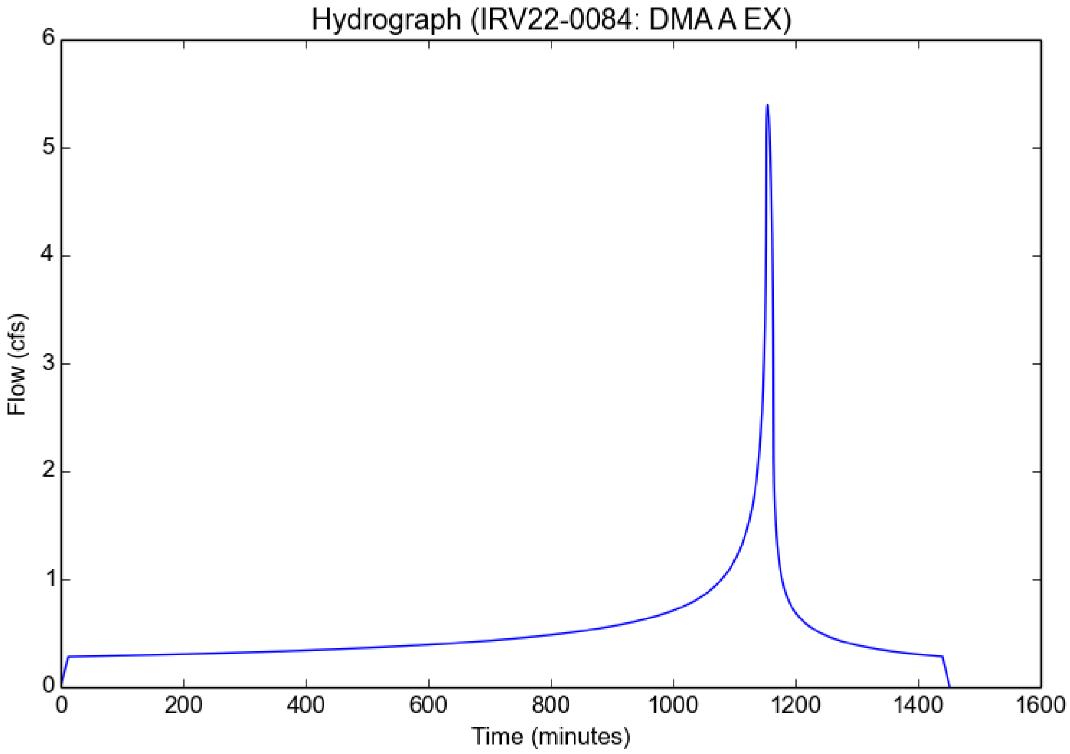
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix D - Existing Conditions HydroCalc/IRV22-0084 - DMA A EX - 10-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA A EX
Area (ac)	3.241
Flow Path Length (ft)	769.0
Flow Path Slope (vft/hft)	0.00421
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.906
Soil Type	17
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.7124
Peak Intensity (in/hr)	1.8631
Undeveloped Runoff Coefficient (Cu)	0.8277
Developed Runoff Coefficient (Cd)	0.8932
Time of Concentration (min)	12.0
Clear Peak Flow Rate (cfs)	5.3936
Burned Peak Flow Rate (cfs)	5.3936
24-Hr Clear Runoff Volume (ac-ft)	1.0553
24-Hr Clear Runoff Volume (cu-ft)	45968.2705



Peak Flow Hydrologic Analysis

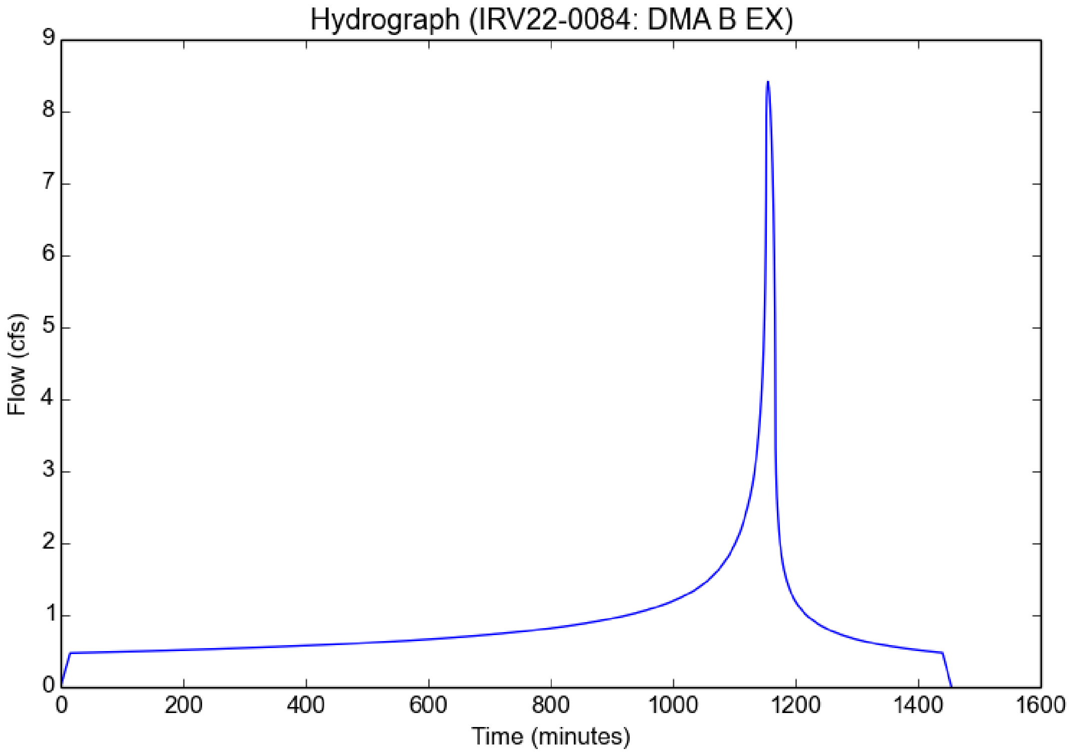
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix D - Existing Conditions HydroCalc/IRV22-0084 - DMA B EX - 10-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA B EX
Area (ac)	5.641
Flow Path Length (ft)	1121.0
Flow Path Slope (vft/hft)	0.00612
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.879
Soil Type	17
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.7124
Peak Intensity (in/hr)	1.6776
Undeveloped Runoff Coefficient (Cu)	0.809
Developed Runoff Coefficient (Cd)	0.889
Time of Concentration (min)	15.0
Clear Peak Flow Rate (cfs)	8.413
Burned Peak Flow Rate (cfs)	8.413
24-Hr Clear Runoff Volume (ac-ft)	1.7963
24-Hr Clear Runoff Volume (cu-ft)	78248.331



Peak Flow Hydrologic Analysis

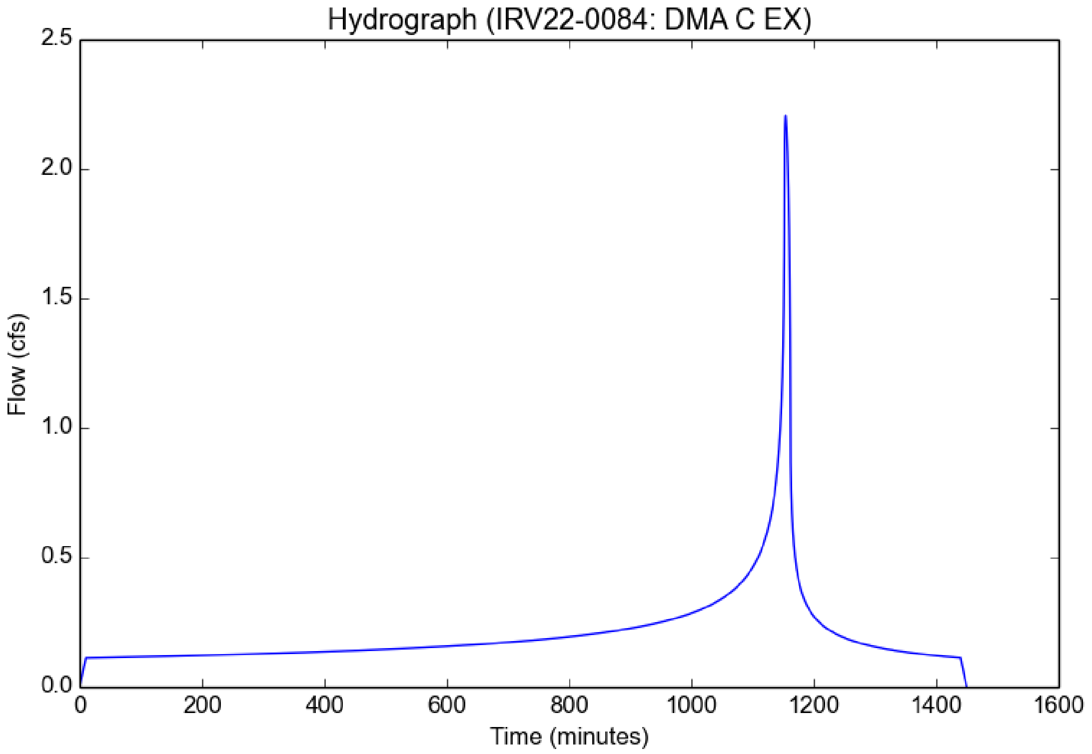
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix D - Existing Conditions HydroCalc/IRV22-0084 - DMA C EX - 10-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA C EX
Area (ac)	1.209
Flow Path Length (ft)	633.0
Flow Path Slope (vft/hft)	0.00577
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.983
Soil Type	17
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.7124
Peak Intensity (in/hr)	2.0298
Undeveloped Runoff Coefficient (Cu)	0.8434
Developed Runoff Coefficient (Cd)	0.899
Time of Concentration (min)	10.0
Clear Peak Flow Rate (cfs)	2.2063
Burned Peak Flow Rate (cfs)	2.2063
24-Hr Clear Runoff Volume (ac-ft)	0.4183
24-Hr Clear Runoff Volume (cu-ft)	18222.1255



Peak Flow Hydrologic Analysis

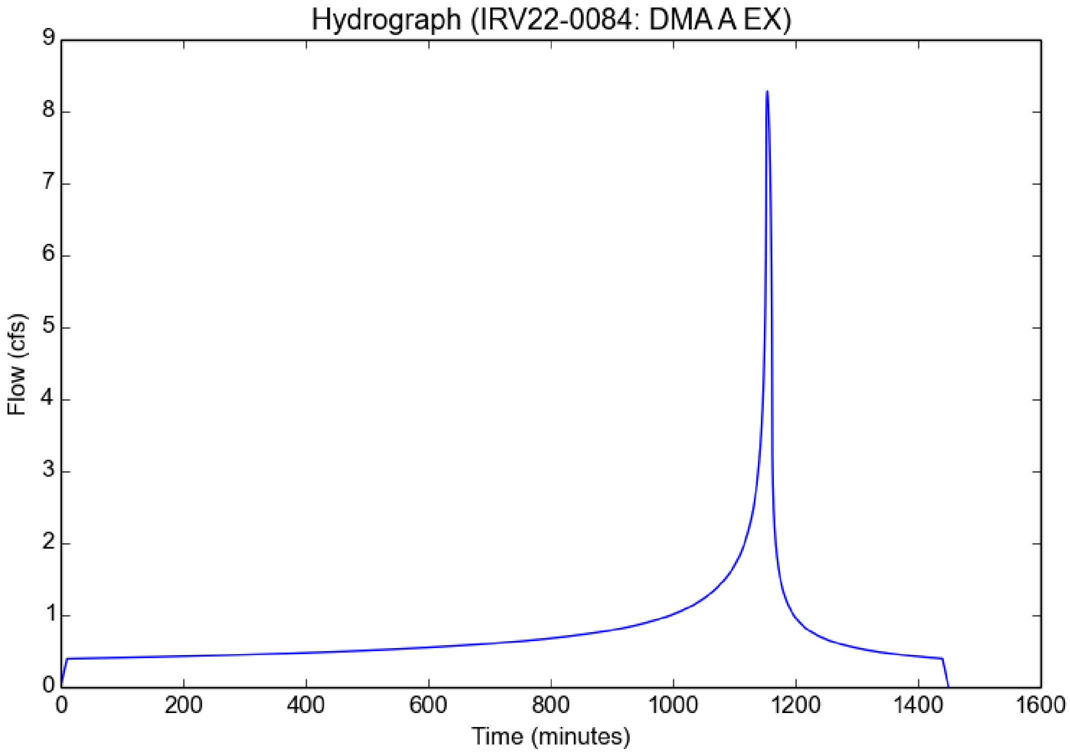
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix D - Existing Conditions HydroCalc/IRV22-0084 - DMA A EX - 50-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA A EX
Area (ac)	3.241
Flow Path Length (ft)	769.0
Flow Path Slope (vft/hft)	0.00421
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.906
Soil Type	17
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	6.6
Peak Intensity (in/hr)	2.8429
Undeveloped Runoff Coefficient (Cu)	0.8865
Developed Runoff Coefficient (Cd)	0.8987
Time of Concentration (min)	10.0
Clear Peak Flow Rate (cfs)	8.2808
Burned Peak Flow Rate (cfs)	8.2808
24-Hr Clear Runoff Volume (ac-ft)	1.4873
24-Hr Clear Runoff Volume (cu-ft)	64787.2625



Peak Flow Hydrologic Analysis

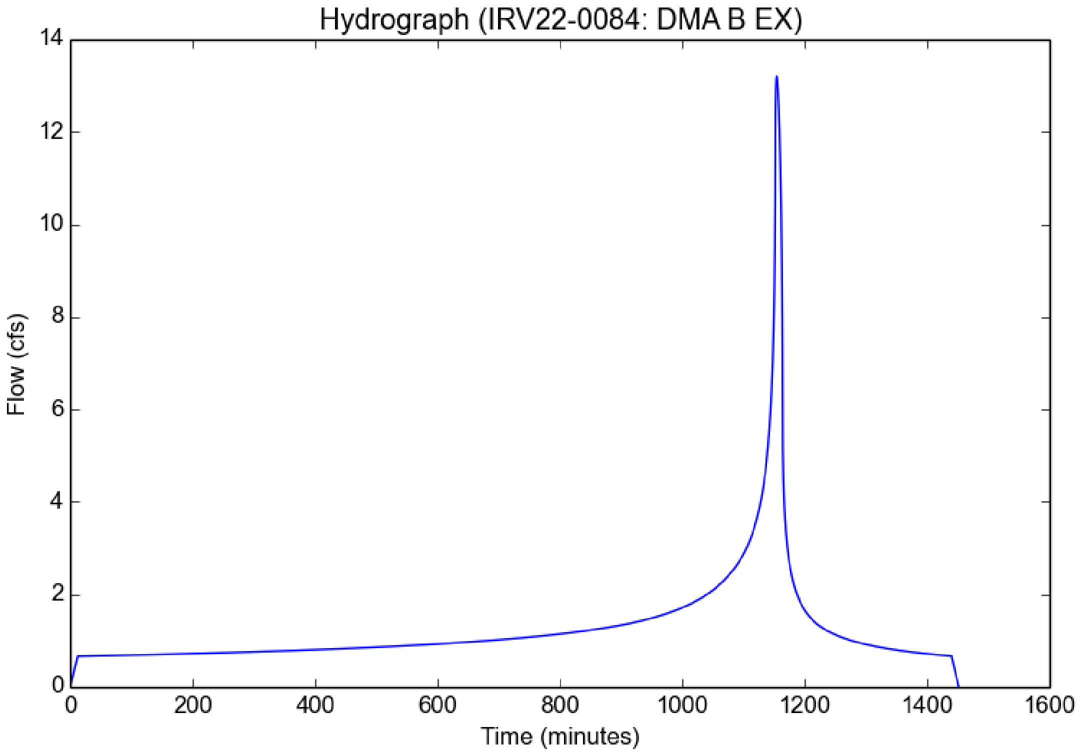
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix D - Existing Conditions HydroCalc/IRV22-0084 - DMA B EX - 50-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA B EX
Area (ac)	5.641
Flow Path Length (ft)	1121.0
Flow Path Slope (vft/hft)	0.00612
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.879
Soil Type	17
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	6.6
Peak Intensity (in/hr)	2.6094
Undeveloped Runoff Coefficient (Cu)	0.8776
Developed Runoff Coefficient (Cd)	0.8973
Time of Concentration (min)	12.0
Clear Peak Flow Rate (cfs)	13.2079
Burned Peak Flow Rate (cfs)	13.2079
24-Hr Clear Runoff Volume (ac-ft)	2.5368
24-Hr Clear Runoff Volume (cu-ft)	110503.7616



Peak Flow Hydrologic Analysis

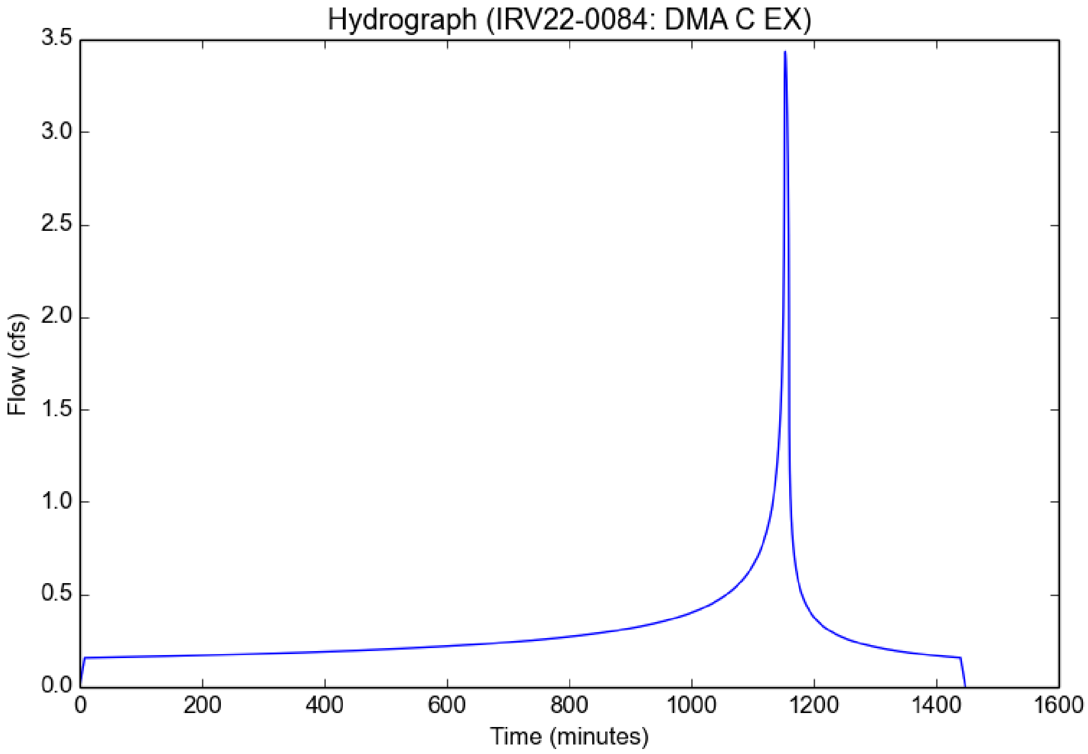
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix D - Existing Conditions HydroCalc/IRV22-0084 - DMA C EX - 50-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA C EX
Area (ac)	1.209
Flow Path Length (ft)	633.0
Flow Path Slope (vft/hft)	0.00577
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.983
Soil Type	17
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

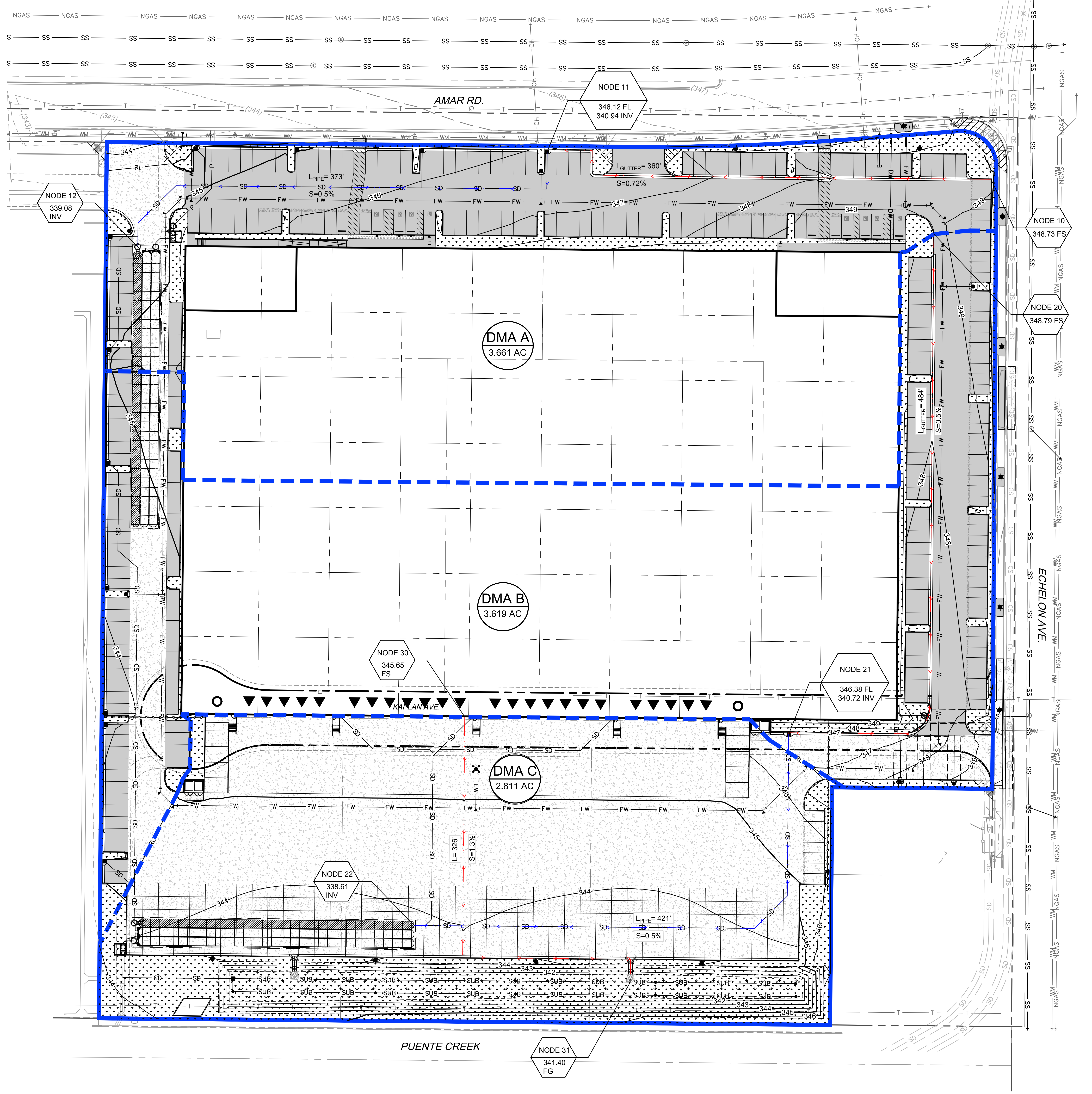
Output Results

Modeled (50-yr) Rainfall Depth (in)	6.6
Peak Intensity (in/hr)	3.1573
Undeveloped Runoff Coefficient (Cu)	0.8986
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	8.0
Clear Peak Flow Rate (cfs)	3.4353
Burned Peak Flow Rate (cfs)	3.4353
24-Hr Clear Runoff Volume (ac-ft)	0.5865
24-Hr Clear Runoff Volume (cu-ft)	25548.4859



Appendix E – Proposed Hydrology Exhibit

CAUTION: IF THIS SHEET IS NOT 24"x36" IT IS A REDUCED PRINT



LEGEND:

SUBAREA
ACRES

NODE #
ELEV.

L= FLOW PATH LENGTH

▬	PROPERTY LIMIT
▬ ▬	SUBAREA BOUNDARY
←	SURFACE FLOW PATH
←	PIPE FLOW PATH
←	PROPOSED STORM DRAIN
▨	PROPOSED PERVIOUS AREA

EXISTING		PROPOSED
(5280)	MAJOR CONTOUR	5280
(5278)	MINOR CONTOUR	5278

PROJECT INFORMATION

NOT LOCATED IN AN AREA UNDER THE CAPITAL FLOOD PROTECTION CONDITIONS REQUIREMENT
--> URBAN FLOOD LEVEL OF PROTECTION CONDITION (25 YEAR)

FROM LOS ANGELES COUNTY PUBLIC WORKS 1-H1.21 HYDROLOGIC MAP,
50-YEAR 24-HOUR RAINFALL DEPTH = 6.6 IN
SOIL TYPE 17 FIRE FACTOR = 0

PROPOSED HYDROLOGY

AREA	IMPERVIOUS FRACTION	Q_{10} (CFS)	Q_{50} (CFS)	V_{10} (CU-FT)	V_{50} (CU-FT)
DMA A	0.935	6.365	9.837	53,151	74,758
DMA B	0.942	5.815	8.844	52,833	74,276
DMA C	0.754	6.487	9.962	34,945	49,849
TOTAL	0.887	19.264	28.643	140,929	198,883

WARE MALCOMB
LEADING DESIGN FOR COMMERCIAL REAL ESTATE

10 edelman
irvine, ca 92618
p 949.660.9128
waremalcomb.com

REGISTERED PROFESSIONAL ENGINEER
LUCAS A. CORSBIE
No. 72588
Lucas Corsbie
CIVIL
STATE OF CALIFORNIA
11/16/2022

FOR AND ON BEHALF
OF WARE MALCOMB

HINES INDUSTRY HILLS
HYDROLOGY STUDY

15940-16012 AMAR RD. AND 15940-16065 KAPLAN AVE
CITY OF INDUSTRY, CA 91744

PROPOSED HYDROLOGY EXHIBIT

NO.	DATE	REMARKS

JOB NO.:	IRV22-0084
PA / PM:	L. CORSBIE
DESIGNED:	J. PARK
DATE:	11/16/22
PLOT DATE:	11/16/22

SHEET
1

0 20 40 80
SCALE: 1" = 40'

Appendix F – Rational Method Calculations – Proposed Condition

Peak Flow Hydrologic Analysis

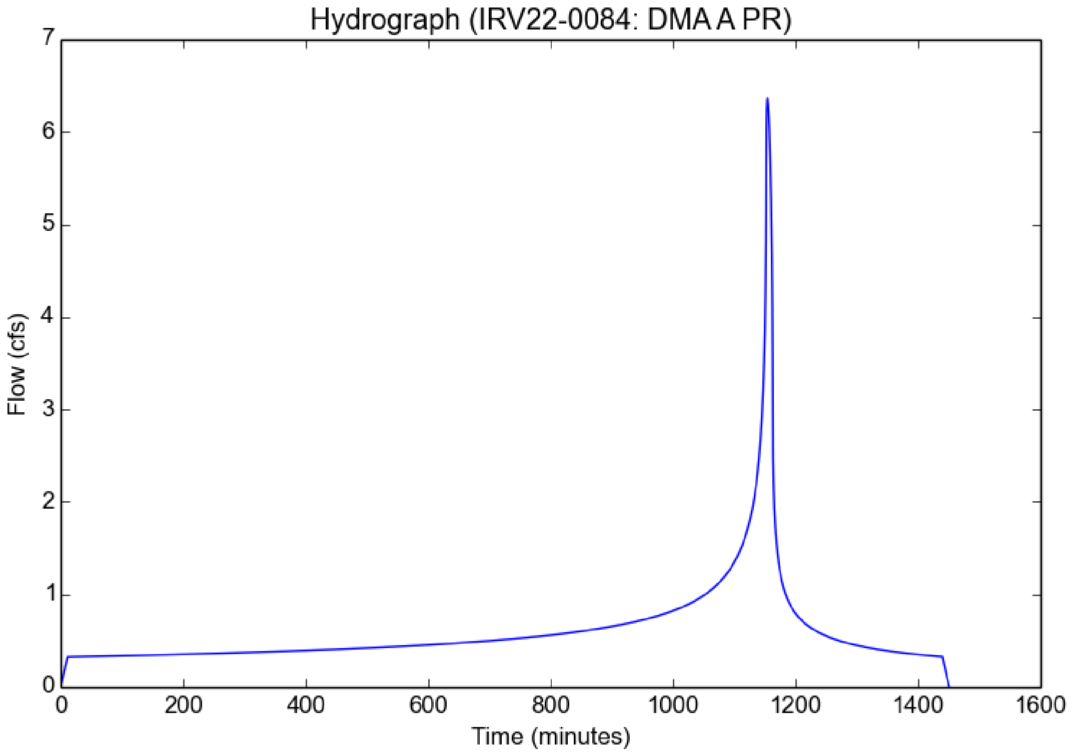
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix F - Proposed Conditions HydroCalc/IRV22-0084 - DMA A PR - 10-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA A PR
Area (ac)	3.661
Flow Path Length (ft)	733.0
Flow Path Slope (vft/hft)	0.006125
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.935
Soil Type	17
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.7124
Peak Intensity (in/hr)	1.9409
Undeveloped Runoff Coefficient (Cu)	0.8355
Developed Runoff Coefficient (Cd)	0.8958
Time of Concentration (min)	11.0
Clear Peak Flow Rate (cfs)	6.3653
Burned Peak Flow Rate (cfs)	6.3653
24-Hr Clear Runoff Volume (ac-ft)	1.2202
24-Hr Clear Runoff Volume (cu-ft)	53150.9675



Peak Flow Hydrologic Analysis

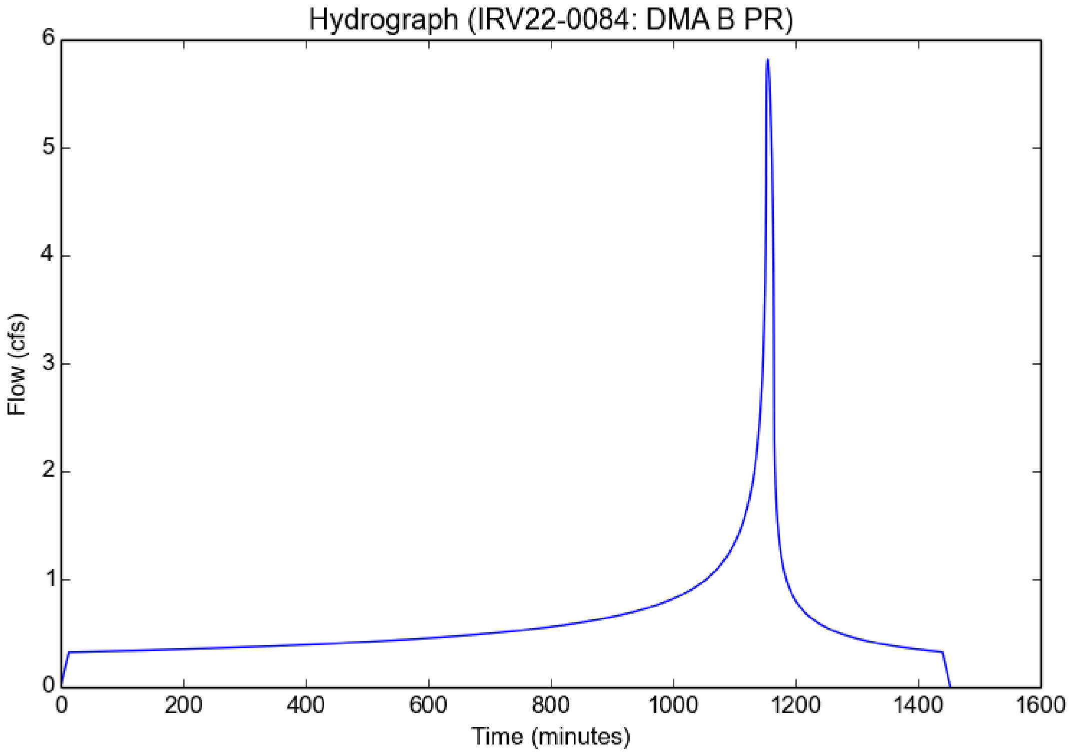
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix F - Proposed Conditions HydroCalc/IRV22-0084 - DMA B PR - 10-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA B PR
Area (ac)	3.619
Flow Path Length (ft)	905.0
Flow Path Slope (vft/hft)	0.005
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.942
Soil Type	17
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.7124
Peak Intensity (in/hr)	1.7944
Undeveloped Runoff Coefficient (Cu)	0.8208
Developed Runoff Coefficient (Cd)	0.8954
Time of Concentration (min)	13.0
Clear Peak Flow Rate (cfs)	5.8145
Burned Peak Flow Rate (cfs)	5.8145
24-Hr Clear Runoff Volume (ac-ft)	1.2129
24-Hr Clear Runoff Volume (cu-ft)	52832.898



Peak Flow Hydrologic Analysis

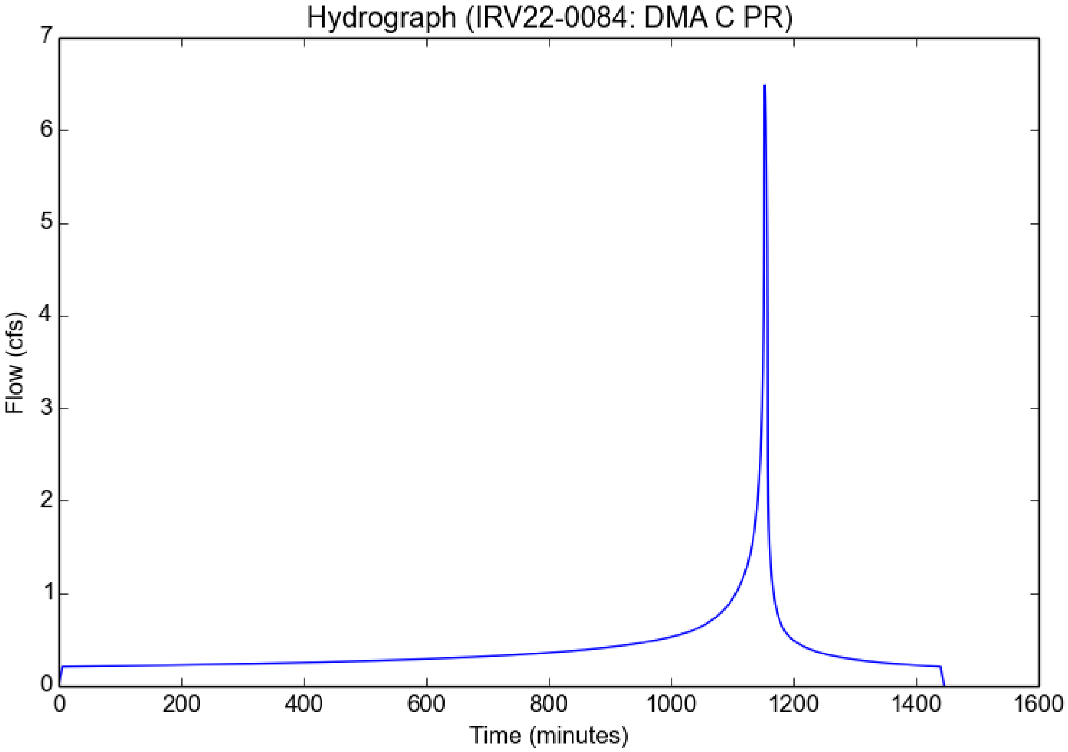
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix F - Proposed Conditions HydroCalc/IRV22-0084 - DMA C PR - 10-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA C PR
Area (ac)	2.811
Flow Path Length (ft)	326.0
Flow Path Slope (vft/hft)	0.0131
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.754
Soil Type	17
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.7124
Peak Intensity (in/hr)	2.5807
Undeveloped Runoff Coefficient (Cu)	0.8765
Developed Runoff Coefficient (Cd)	0.8942
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	6.4868
Burned Peak Flow Rate (cfs)	6.4868
24-Hr Clear Runoff Volume (ac-ft)	0.8022
24-Hr Clear Runoff Volume (cu-ft)	34944.139



Peak Flow Hydrologic Analysis

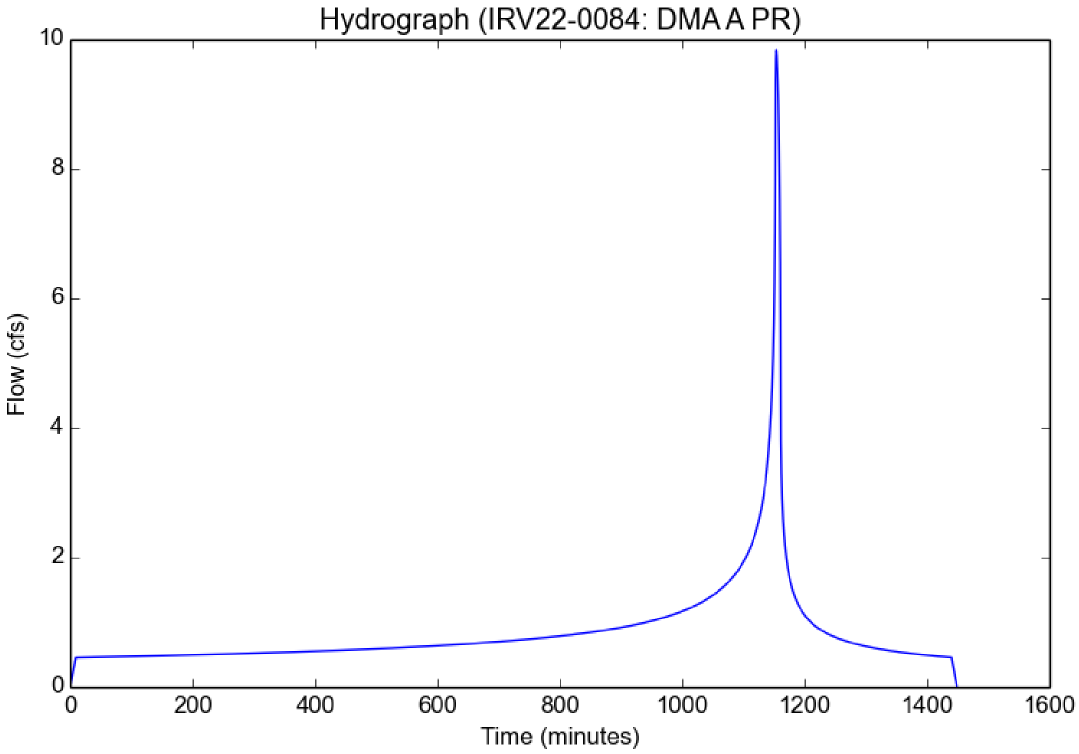
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix F - Proposed Conditions HydroCalc/IRV22-0084 - DMA A PR - 50-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA A PR
Area (ac)	3.661
Flow Path Length (ft)	733.0
Flow Path Slope (vft/hft)	0.006125
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.935
Soil Type	17
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	6.6
Peak Intensity (in/hr)	2.9872
Undeveloped Runoff Coefficient (Cu)	0.892
Developed Runoff Coefficient (Cd)	0.8995
Time of Concentration (min)	9.0
Clear Peak Flow Rate (cfs)	9.837
Burned Peak Flow Rate (cfs)	9.837
24-Hr Clear Runoff Volume (ac-ft)	1.7162
24-Hr Clear Runoff Volume (cu-ft)	74757.7468



Peak Flow Hydrologic Analysis

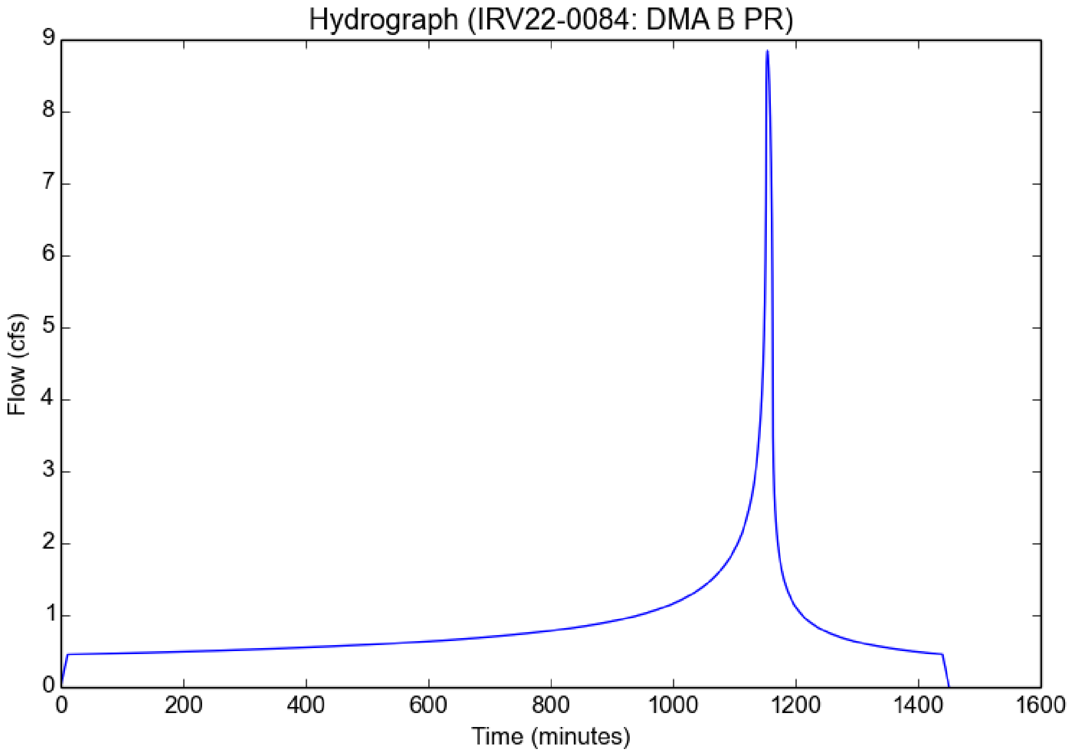
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix F - Proposed Conditions HydroCalc/IRV22-0084 - DMA B PR - 50-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA B PR
Area (ac)	3.619
Flow Path Length (ft)	905.0
Flow Path Slope (vft/hft)	0.005
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.942
Soil Type	17
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	6.6
Peak Intensity (in/hr)	2.7184
Undeveloped Runoff Coefficient (Cu)	0.8817
Developed Runoff Coefficient (Cd)	0.8989
Time of Concentration (min)	11.0
Clear Peak Flow Rate (cfs)	8.8436
Burned Peak Flow Rate (cfs)	8.8436
24-Hr Clear Runoff Volume (ac-ft)	1.7051
24-Hr Clear Runoff Volume (cu-ft)	74275.658



Peak Flow Hydrologic Analysis

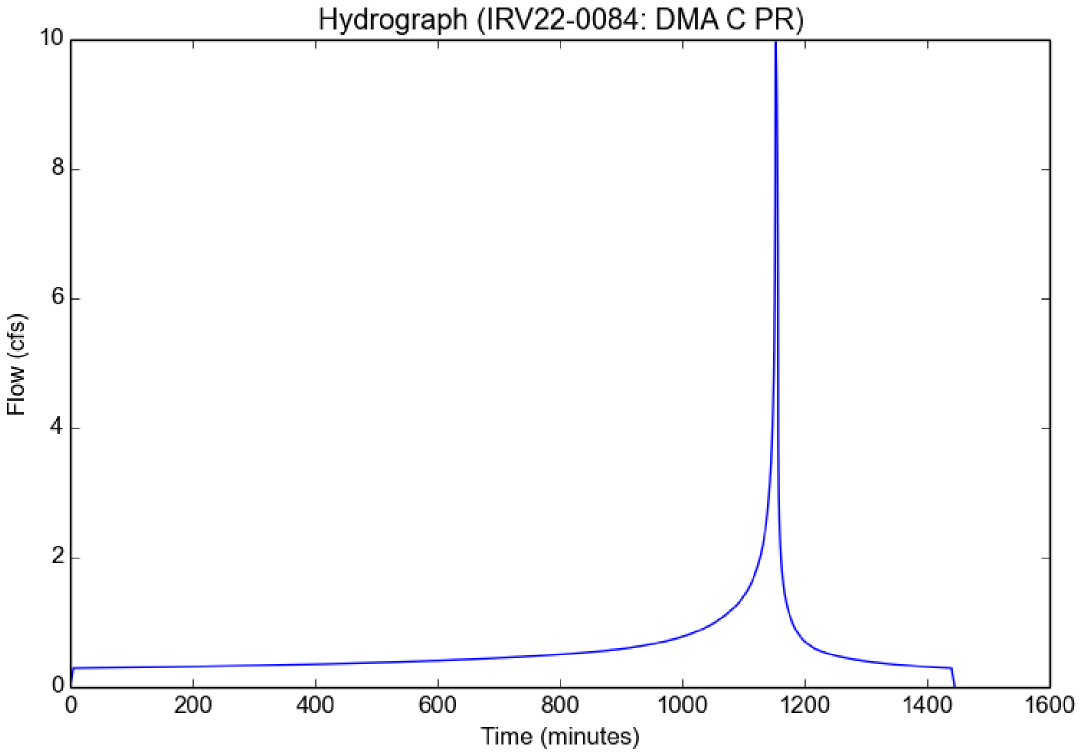
File location: W:/IRV/22/0084/00/Civil/ENG/Storm Drainage/Appendix F - Proposed Conditions HydroCalc/IRV22-0084 - DMA C PR - 50-Year.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	IRV22-0084
Subarea ID	DMA C PR
Area (ac)	2.811
Flow Path Length (ft)	326.0
Flow Path Slope (vft/hft)	0.0131
50-yr Rainfall Depth (in)	6.6
Percent Impervious	0.754
Soil Type	17
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	6.6
Peak Intensity (in/hr)	3.9377
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	9.9621
Burned Peak Flow Rate (cfs)	9.9621
24-Hr Clear Runoff Volume (ac-ft)	1.1444
24-Hr Clear Runoff Volume (cu-ft)	49848.3727



Appendix G – Hydraulic Calculations

Worksheet for 6" STORM DRAIN PIPE

Project Description

Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data

Roughness Coefficient	0.010
Channel Slope	0.005 ft/ft
Normal Depth	6.0 in
Diameter	6.0 in
Discharge	0.52 cfs

Results

Discharge	0.52 cfs
Normal Depth	6.0 in
Flow Area	0.2 ft²
Wetted Perimeter	1.6 ft
Hydraulic Radius	1.5 in
Top Width	0.00 ft
Critical Depth	4.4 in
Percent Full	100.0 %
Critical Slope	0.006 ft/ft
Velocity	2.63 ft/s
Velocity Head	0.11 ft
Specific Energy	0.61 ft
Froude Number	(N/A)
Maximum Discharge	0.55 cfs
Discharge Full	0.52 cfs
Slope Full	0.005 ft/ft
Flow Type	Undefined

GVF Input Data

Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	0.0 %
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	6.0 in
Critical Depth	4.4 in
Channel Slope	0.005 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for 8" STORM DRAIN PIPE

Project Description

Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data

Roughness Coefficient	0.010
Channel Slope	0.005 ft/ft
Normal Depth	8.0 in
Diameter	8.0 in
Discharge	1.11 cfs

Results

Discharge	1.11 cfs
Normal Depth	8.0 in
Flow Area	0.3 ft²
Wetted Perimeter	2.1 ft
Hydraulic Radius	2.0 in
Top Width	0.00 ft
Critical Depth	6.0 in
Percent Full	100.0 %
Critical Slope	0.006 ft/ft
Velocity	3.18 ft/s
Velocity Head	0.16 ft
Specific Energy	0.82 ft
Froude Number	(N/A)
Maximum Discharge	1.19 cfs
Discharge Full	1.11 cfs
Slope Full	0.005 ft/ft
Flow Type	Undefined

GVF Input Data

Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	0.0 %
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	8.0 in
Critical Depth	6.0 in
Channel Slope	0.005 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for 10" STORM DRAIN PIPE

Project Description

Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data

Roughness Coefficient	0.010
Channel Slope	0.005 ft/ft
Normal Depth	10.0 in
Diameter	10.0 in
Discharge	2.01 cfs

Results

Discharge	2.01 cfs
Normal Depth	10.0 in
Flow Area	0.5 ft²
Wetted Perimeter	2.6 ft
Hydraulic Radius	2.5 in
Top Width	0.00 ft
Critical Depth	7.6 in
Percent Full	100.0 %
Critical Slope	0.006 ft/ft
Velocity	3.69 ft/s
Velocity Head	0.21 ft
Specific Energy	1.05 ft
Froude Number	(N/A)
Maximum Discharge	2.17 cfs
Discharge Full	2.01 cfs
Slope Full	0.005 ft/ft
Flow Type	Undefined

GVF Input Data

Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	0.0 %
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	10.0 in
Critical Depth	7.6 in
Channel Slope	0.005 ft/ft
Critical Slope	0.006 ft/ft

APPENDIX J

Preliminary Assessment of Environmental Noise Amar Road Development

PRELIMINARY ASSESSMENT OF ENVIRONMENTAL NOISE

AMAR ROAD DEVELOPMENT
CITY OF INDUSTRY, CA
CEQA NOISE REPORT

August 16, 2023

By

Veneklasen Associates, Inc.
1650 Borel Place Suite 234
San Mateo, CA 94401

Contents

ASSESSMENT OF ENVIRONMENTAL NOISE

1.0 INTRODUCTION

This report evaluates potential impacts associated with the construction and operation noise of the Amar Road, City of Industry, CA Development Project.

1.1 Project Description

The proposed Project is an industrial development on a 10.09-acre site containing seven adjacent parcels, Assessor Parcel Numbers 8250-001-011 through 8250-001-017, with addresses 15940 —16016 Amar Road and 15940—16040 Kaplan Avenue. The project site is bounded by Amar Road to the north, Echelon Avenue to the east, Puente Creek Channel to the south, and an existing Public Storage building to the west. The current site is occupied by ten single story buildings and associated driveways and surface parking lots and bisected by Kaplan Avenue, a dead-end road that will be abandoned.

The Project will include a new 205,460 sf industrial warehouse with surface parking. Within the structure will be a 199,460 sf footprint with a 6,000 sf mezzanine. Almost all of the building, 193,460 sf, will be used as an industrial warehouse, with 12,000 sf of the building—including the mezzanine space—used as ancillary office space.

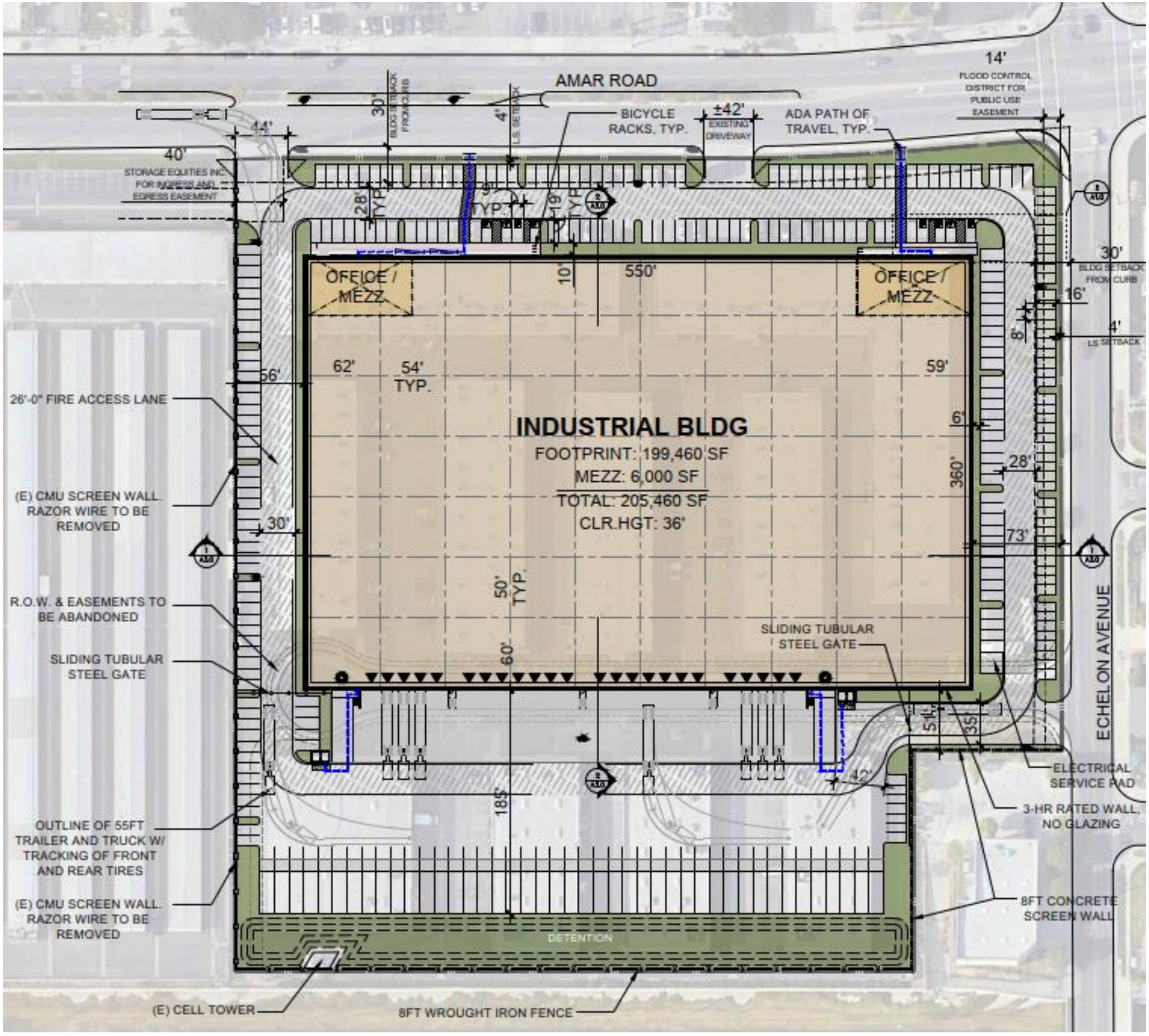
The Project will include 257 parking stalls, including 202 standard stalls and 55 compact stalls. Additionally, the Project includes 24 dock-high doors for truck docking, along with two additional doors at grade. Approximately 12 percent of the Property, or 52,945 sf, will be landscaped, including the detention on the southern portion of the Property.

The building will be set back 30 feet from the north and east and 56 feet from the west. On the south, it will be set back 185 feet from the southernmost portion of the Property, and 51 feet from the parcel abutting the Property's southeast corner.

The building, when completed, is anticipated to operate as an industrial warehouse 24 hours a day, seven days a week, with an estimated 100 employees per shift, with approximately three shifts a day, and an estimated 464 employees total. The building occupancy will be classified as 'B' & 'S', construction type III-B. The T.O.P is 44'-6".

The proposed site plan is shown in Figure 1.

Figure 1 – Proposed Project Site Plan



1.2 Characteristics of Noise

Noise is usually defined as unwanted sound and can be an undesirable by-product of society’s normal day-to-day activities. Sound becomes unwanted when it interferes with normal activities, causes actual physical harm, or has an adverse effect on health.

People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.” However, the sound pressure magnitude can be objectively measured and quantified using a logarithmic ratio of pressures which yields the level of sound, utilizing the measurement scale of decibels (dB). The decibel is generally adjusted to the A-weighted level (dBA) which de-emphasizes very low frequencies to better approximate the human ear’s range of sensitivity. In practice, the noise level of a sound source is measured using a sound level meter that includes an electronic filter corresponding to the A-weighting curve. Table A.1 in Appendix A of this report defines the decibel along with other technical terms used in this analysis.

Even though the A-weighted scale accounts for the relative loudness perceived by the human ear and, therefore, is commonly used to quantify individual events or general community sound levels, the degree of annoyance or other response effects also depends on several other perceptibility factors, including:

- Ambient (background) sound level
- Magnitude of the event sound level relative to the background noise
- Spectral (frequency) composition (e.g. presence of tones)
- Duration of the sound event
- Number of event occurrences, repetitiveness, and intermittency
- Time of day the event occurs.

In determining the daily level of environmental noise, it is important to account for the difference in human responses to daytime and nighttime noises. At night, exterior background noise levels are generally lower than daytime levels. However, most household noise also decreases at night, and exterior noise may become increasingly noticeable. Further, most people sleep at night and have greater sensitivity to noise intrusion. To account for human sensitivity to nighttime noise levels, a 24-hour descriptor, the Community Noise Equivalent Level (CNEL) has been developed. The CNEL divides the 24-hour day into a daytime period of 7:00 a.m. to 7:00 p.m., an evening period from 7:00 p.m. to 10:00 p.m., and a nighttime period of 10:00 p.m. to 7:00 a.m. In determining the CNEL, noise levels occurring during the evening period are increase by 5 dB, while noise levels occurring during the nighttime period are increased by 10 dB to account for the greater sensitivity during the evening and nighttime periods.

The effects of noise on people fall into three general categories:

- Subjective effects of annoyance and nuisance
- Interference with activities such as speech, sleep and learning
- Physiological effects such as hearing loss

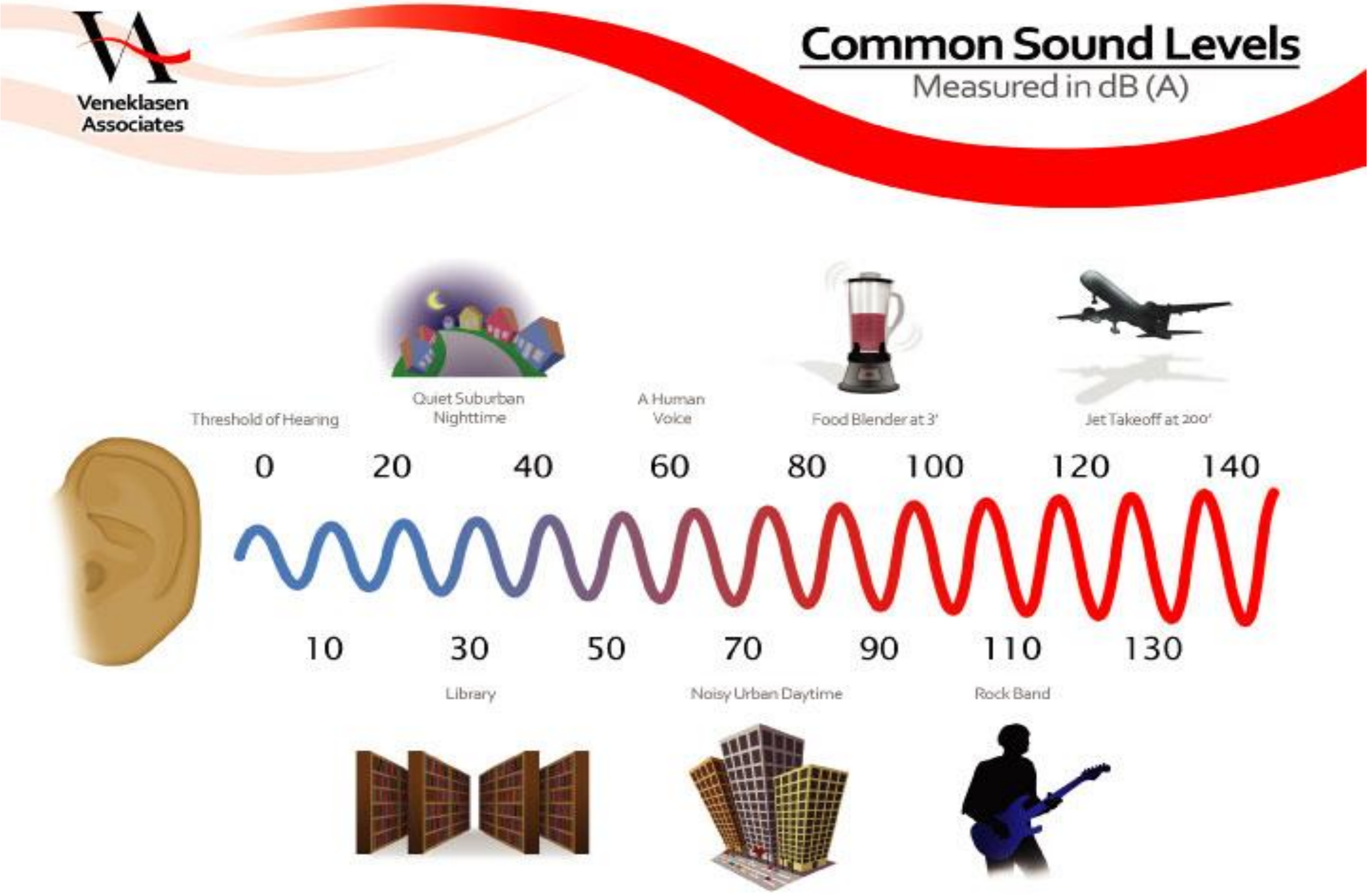
In most cases, the levels associated with environmental noise produce effects only in the first two categories. However, workers in industrial plants may experience noise effects in the last category. There is no completely effective way to measure the subjective effects of noise or the corresponding reactions of annoyance, because of the wide variation in individual thresholds of annoyance and degrees to which people become acclimated to noise. Thus, an important way of determining a person's subjective reaction to a new noise source is by comparison to the existing environment to which they are accustomed (the “ambient environment”). In general, the more the level of a noise event exceeds the prevailing ambient noise level, the less acceptable the noise source will be to those exposed to it.

With regard to increases in A-weighted noise levels, the following relationships are applicable to this analysis:

- Except in carefully controlled laboratory experiments, a 1 dB change cannot be perceived.
- Outside of a laboratory, a 3 dBA change will be generally perceivable by most people.
- A change in level of at least 5 dBA is considered a noticeable change by most people.
- A 10 dBA change will result in the perception of doubling or halving the loudness of the noise.

Common noise levels associated with various activities are shown on Figure 2.

Figure 2 – Common Noise Levels



Noise sources are either "point sources", such as stationary equipment or individual motor vehicles, or "line sources", such as a roadway with a large number of mobile point sources (motor vehicles). Sound generated by a stationary point source typically diminishes (attenuates) at a rate of 6 dBA for each doubling of distance from the source to the receptor at acoustically "hard" sites, and at a rate of 7.5 dBA at acoustically "soft" sites.[1] For example, a 60 dBA noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dBA at 100 feet from the source and it would be 48 dBA at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling of distance from the source to the receptor for hard and soft sites, respectively.[2] Man-made or natural barriers can also attenuate sound levels.

The minimum attenuation of exterior to interior noise provided by typical structures is provided in Table 1, Outside to Inside Noise Attenuation.

Table 1 - Outside to Inside Noise Attenuation (dBA)

Building Type	Open Windows	Closed Windows[1]
Residences	17	25
Schools	17	25
Churches	20	30
Hospitals/Convalescent Homes	17	25
Offices	17	25
Theaters	20	30
Hotels/Motels	17	25

Source: Transportation Research Board, National Research Council, Highway Noise: A Design Guide for Highway Engineers*, National Cooperative Highway Research Program Report 117.*

[1] *As shown, structures with closed windows can attenuate exterior noise by a minimum of 25 to 30 dBA.*

1.3 Characteristics of Vibration

Vibration is minute variation in pressure through structures and the earth, whereas, noise is minute variation in pressure through air. Some vibration effects can be caused by noise; e.g., the rattling of windows from truck pass-bys. This phenomenon is related to the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Ground-borne vibration attenuates rapidly as distance from the source of the vibration increases. Vibration amplitude can be measured as peak particle velocity (PPV), the maximum instantaneous peak amplitude in inches per second, or root-mean-square (RMS) velocity in inches per second or as vibration level in decibels (VdB) referenced to 1 micro-inch per second. The ratio between the PPV and the maximum RMS amplitude is termed the "crest factor." According to the Federal Transit Administration (FTA), the PPV level for construction equipment is typically 1.7 to 6 times greater than the RMS vibration level. The FTA uses a crest factor of 4 for the conversion of PPV levels to RMS vibration levels. For the purposes of ground-borne vibration analysis of

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[1] U.S. Department of Transportation, Federal Highway Administration, *Highway Noise Fundamentals*, (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 97. A "hard" or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt, concrete, and very hard packed soils. An acoustically "soft" or absorptive site is characteristic of normal earth and most ground with vegetation.

[2] U.S. Department of Transportation, Federal Highway Administration, *Highway Noise Fundamentals*, (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 97.

impacts to existing structures, vibration velocity is described in terms of PPV. For the analysis of the human response to vibration, VdB is utilized.

The vibration velocity threshold of perception for humans is approximately 65 VdB, and a vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people[3]. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Common ground-induced vibrations related to roadway traffic and construction activities pose no threat to buildings or structures. If a roadway is smooth, the ground-borne vibration from traffic is barely perceptible. The range of interest is from approximately 50 VdB, which is typically the background vibration velocity, to 94 VdB. This 94 VdB vibration level corresponds to 0.2 PPV, which is the general threshold where minor damage can occur in non-engineered timber and masonry buildings.

2.0 REGULATORY FRAMEWORK

Many government agencies have established noise regulations and policies to protect citizens from potential hearing damage and various other adverse physiological and social effects associated with noise and ground-borne vibration. The regulations and policies that are relevant to project construction and operation noise are listed in this section.

2.1 Applicable State Noise Standards

The State of California has adopted noise compatibility guidelines for general land use planning. The types of land uses addressed by the State standards and the acceptable noise categories for each land use are included in the State of California General Plan Guidelines, which is published and updated by the Governor’s Office of Planning and Research. The level of acceptability of the noise environment is dependent upon the activity associated with the particular land use. According to the State, an exterior noise environment up to 70 CNEL is “normally acceptable” for Offices buildings and Commercial uses and 75 CNEL for Industrial uses.[4] The California Green Building Standards Code (Section 5.507.4.2) stipulates that for buildings exposed to a noise level of 65 dB or more when measured as a 1-hour Equivalent Sound Level (Leq), the building facade, including walls, windows, and roofs, shall provide enough sound insulation so that the interior sound level from exterior sources does not exceed 50 dB during any hour of operation. This applies to non-residential spaces such as offices.

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[3] – U.S. Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, (Washington, DC: U.S. Department of Transportation, Federal Transit Administration, May 2006), p. 7-8.

[4] – State of California, Governor’s Office of Planning and Research, *General Plan Guidelines*, (Sacramento, CA: State of California, Governor’s Office of Planning and Research, January 2019).

The California Environmental Quality Act (CEQA) Guidelines establishes guidelines for the evaluation of significant impacts of environmental noise attributable to a proposed project. The guidelines ask whether the project would result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (“Impact 1 – Temporary or Permanent Increase in Ambient Noise Levels”)
2. Generation of excessive ground-borne vibration or ground-borne noise levels? (“Impact 2 – Increase in Ground-borne Vibration”)
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (“Impact 3 – Airport Noise Exposure”)

The CEQA Guidelines and the City’s General Plan provide no definition of what constitutes a substantial noise increase. Typically, in high noise environments, if the CNEL due to the project would increase by 3 dBA at noise sensitive receptors, the impact is considered significant.

2.2 City of Industry General Plan – Noise Element

The Noise Element of the General Plan identifies noise and land use compatibility standards. Section 4.2.6 Noise Regulations Matrix of the City of Industry General Plan states that the maximum “Normally Acceptable” exterior noise level is CNEL 70 dBA for Offices and Commercial uses. However, the same Matrix establishes CNEL 68 to 78 dBA as “Conditionally Acceptable: New constructions or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.” Noise from traffic to and from the project is not covered in this section.

2.3 City of Industry Municipal Code – Noise Ordinance

There is no Noise Ordinance within the City of Industry Municipal Code for commercial uses apart from entertainment uses.

The City of Industry Municipal Code does not include any requirements for noise or vibration from construction activity.

2.4 Los Angeles County Code – Noise Control

The Los Angeles County Code Section 12.08.390, Table 2 summarizes the County's noise standards for varies type of land uses. The standards represent the maximum acceptable noise levels and are used to determine potential noise impact.

A. *Unless otherwise herein provided, the following exterior noise levels shall apply to all receptor properties within a designated noise zone:*

Table 2 – Los Angeles County Exterior Noise Standard

Zone	Time of Day	One hour Average
Noise Sensitive Area	Anytime	45
Residential Properties	7:00 am – 10:00 pm 10:00 pm – 7:00 am	50 45
Commercial Properties	7:00 am – 10:00 pm 10:00 pm – 7:00 am	60 55
Industrial Properties	Anytime	70

B. *Unless otherwise herein provided, no person shall operate or cause to be operated, any source of sound at any location within the unincorporated county, or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level, when measured on any other property either incorporated or unincorporated, to exceed any of the following exterior noise standards:*

  a. *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 noise level from subsection A of this section; or, if the ambient L50 exceeds the foregoing level, then the ambient L50 becomes the exterior noise level for Standard No. 1.*

  b. *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 noise level from subsection A of this section plus 5dB; or, if the ambient L25 exceeds the foregoing level, then the ambient L25 becomes the exterior noise level for Standard No. 2.*

  c. *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 noise level from subsection A of this section plus 20dB; or, if the ambient L8.3 exceeds the foregoing level, then the ambient L8.3 becomes exterior noise level for Standard No. 3.*

> d. *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 noise level from subsection A of this section plus 15dB; or, if the ambient L1.7 exceeds the foregoing level, then the ambient L1.7 becomes the exterior noise level for Standard No. 4.*
>
> e. *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 noise level from subsection A of this section plus 20dB; or, if the ambient L0 exceeds the foregoing level then the ambient L0 becomes the exterior noise level for Standard No. 5.*

> C. *If the measurement location is on a boundary property between two different zones, the exterior noise level utilized in subsection B of this section to determine the exterior standard shall be the arithmetic mean of the exterior noise levels in subsection A of the subject zones. Except as provided for above in this subsection C, when an intruding noise source originates on an industrial property and is impacting another noise zone, the applicable exterior noise level as designated in subsection A shall be the daytime exterior noise level for the subject receptor property.*

Another aspect to take into account is mentioned in Section 12.08.460 Loading and unloading operations:

> *Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans or similar objects between the hours of 10:00 p.m. and 6:00 a.m. in such a manner as to cause noise disturbance is prohibited.*

Since this facility may be used at night, loading dock activity should be reviewed for compliance. Since loading dock activity originates in an industrial zone (see subsection C. above), the noise ordinance requirement for adjacent residential zones is the daytime exterior noise level for the subject receptor property, or 50 dBA.

2.5 Los Angeles County Code – Construction Noise

According to Section 12.08.440 Construction Equipment, Except for emergency work, it shall be unlawful for any person to operate construction equipment at any construction site, except as outlined in subsections (a) and (b) below:

> (a) *Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., 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 issued by the health officer is prohibited.*
>
> *(b) Noise Restrictions at Affected Structures. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in the following schedule:*

- *At Business Structures. Mobile equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment: Daily, including Sunday and legal holidays, all hours: maximum of 85dBA.*

2.6 FTA Guidelines – Construction Noise

The Federal Transit Administration (FTA) has published a technical manual, "Transit Noise and Vibration Impacts Assessment", which provides guidelines for construction noise. The noise criteria for construction noise are shown in Table 3. The criteria are written in terms of the 8-hour equivalent noise level. Only daytime levels are considered as construction is prohibited at nighttime by County Code (see section 2.5).

Table 3 – FTA Construction Noise Criteria

Land Use	Time of Day	8-hour Average ($L_{eq(8hr)}$)
Residential	Day	80
Commercial	Day	85
Industrial	Day	90

2.7 FTA Guidelines – Ground-Borne Vibration

The City of Industry does not establish criteria for maximum vibration thresholds.

The FTA provides standards and guidelines for perceptibility and annoyance for ground-borne vibration as well as construction vibration impact criteria for building damage. As discussed in the *Characteristics of Vibration* section above, in most circumstances common ground-induced vibrations related to roadway traffic and construction activities pose no threat to buildings or structures, and for smooth roadways, the ground-borne vibration from traffic is barely perceptible.

The "Transit Noise and Vibration Impacts Assessment," provides ground-borne vibration impact criteria with respect to building damage and human response during construction activities. As discussed above, building vibration damage is measured in peak particle velocity described in the unit of inches per second. Table 4, below, provides the FTA vibration criteria applicable to construction activities. According to FTA guidelines, a vibration criterion of 0.20 inch per second should be considered as the significant impact level for non-engineered timber and masonry buildings. Furthermore, structures or buildings constructed of reinforced-concrete, steel, or timber, have vibration damage criteria of 0.50 inch per second pursuant to the FTA guidelines.

Table 4 - Federal Transit Administration Construction Vibration Impact Criteria for Building Damage

Building Category	Peak Particle Velocity (inch per second)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12
Source: Federal Transit Administration, 2006.	

Impacts for the human response to vibration levels are given in VdB by the FTA in Table 8-1 of the *Transit Noise and Vibration Impact Assessment* manual[5], as shown in Table 5 below. The FTA Land Use Category 1 impact criteria is intended for vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. These Category 1 impact criteria vibration levels are well below those associated with human annoyance but are equal to the threshold of perceptibility. The FTA vibration criteria for Category 2, residential impact, indicate impacts occur at a 72 VdB vibration level for frequent events occurring more than 70 times per day, at 75 VdB for occasional events occurring between 30 and 70 times per day, and at 80 VdB for infrequent events occurring less than 30 times per day.

Table 5 - Federal Transit Administration Ground-Borne Vibration Impact Criteria for General Assessment

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch /sec)		
	Frequent Events[1]	**Occasional Events[2]**	**Infrequent Events[3]**
Category 1: Buildings where vibration would interfere with interior operations	65 VdB[4]	65 VdB[4]	65 VdB[4]
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB

Notes:
1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. “Occasional Events” is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have these many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.

Source: Federal Transit Administration, 2006.

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[5] U.S. Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, (Washington, DC: U.S. Department of Transportation, Federal Transit Administration, May 2006), p. 8-3

3.0 ENVIRONMENTAL IMPACTS AND SIGNIFICANCE

3.1 Significance Thresholds

Based on the above code requirements and guidelines, the significance thresholds are defined below for each of the three potential noise impacts identified in the CEQA Guidelines.

3.1.1 *Impact 1 – Temporary or Permanent Increase in Ambient Noise Levels*

Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The thresholds used to determine significance of impacts in answer to this question are summarized in Table 6.

Table 6 – Project Noise Thresholds

Activity	Type	Significance Threshold
Off-site Traffic Noise	Permanent	3 dB increase in CNEL (Section 2.1)
Operational Noise	Permanent	50 dBA one-hour average sound level at neighboring residential properties (Section 2.1) *or* 3 dB increase in CNEL (Section 2.1)
Construction Noise	Temporary	Daytime: 80 dBA 8-hour equivalent noise level (Section 2.6) Nighttime: Prohibited (Section 2.5)

3.1.2 *Impact 2 – Increase in Ground-borne Vibration*

Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Table 7 - Project Vibration Thresholds

Activity	Type	Significance Threshold
Operational Vibration	Permanent	At neighboring residences (Section 2.7): 72 VdB – greater than 70 events per day. 75 VdB – between 30-70 events per day. 80 VdB – less than 30 events per day.
Construction Vibration	Temporary	0.2 in/s PPV (Section 2.7)

3.1.3 *Impact 3 – Airport Noise Exposure*

For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The project is not located in the vicinity of a private airstrip or airport land use plan. There is no impact and no significance thresholds are defined.

3.2 Impact 1. Temporary or permanent increase in ambient noise levels

3.2.1 Existing Ambient Monitored Noise Levels

The proposed project site is bounded by Amar Road on the north and Echelon Avenue to the west in the city of Industry, California. The land uses surrounding the project are mainly residential, commercial, and Industrial. Traffic from Amar Road and Echelon Avenue are the primary source of noise in the general area of the site.

To establish existing ambient noise levels in areas surrounding the project site, a field monitoring study was conducted. Measurements were performed on the project site for documenting the ambient conditions. Vehicular traffic is the predominant noise source around the project site. Measurements were performed the location shown on Figure 3. The measurements occurred at this location on November 17, 2022. The weather conditions were clear, and no anomalies were present during the survey periods.

Table 8 provides the noise level data associated with each monitoring period for each location.

Figure 3–Project Site and Noise Monitoring Locations

Table 8 - Ambient Monitored Noise Levels

Position	Primary Noise Source	Date	Noise Level (CNEL)
L1	Amar Road	November 17, 2022	CNEL 65 dBA
L2	Echelon Avenue	November 17, 2022	CNEL 60 dBA
Source: Veneklasen Associates Inc., 2022.			

3.2.2 Increase due to Project Traffic

Information on Project trips was provided in a memo by Fehr & Peers dated July 5, 2023. This is attached for reference in Appendix D. Per Institute of Transportation Engineers (ITE) trip generation rates, the project will result in a net reduction of 1,436 daily vehicle trips, a net reduction of 101 vehicle trips during AM peak hour, and a net reduction of 193 vehicle trips during PM peak hour. Therefore, traffic volume and consequent noise on Amar Road will decrease, and there is no impact in terms of permanent increase in ambient noise. While the percentage of truck traffic may change due to the project, with such a substantial reduction in vehicle trips, there will still be a net reduction in off-site vehicular noise.

3.2.3 Operational Noise

Major expected sources of operational noise include rooftop mechanical and loading dock. Mechanical equipment has not been selected yet, so Veneklasen used typical sound power levels of rooftop equipment and a typical number of rooftop units to estimate the operational noise. See Table 9.

The project will have loading docks expected to be on the south side of the building. A typical loading dock event was defined using the assumptions shown in Table 9. This data is generalized from past measurements of loading docks. With these assumptions, the hourly noise level will depend on the number of events per hour. It is estimated that around 13% of the project trip generation may be made by medium and heavy trucks, or approximately 48 daily trips. If spread evenly through daytime and evening hours, this is about three (3) truck trips per hour. This analysis uses six (6) loading dock events per hour to allow for circumstances where a greater than average number of trucks arrive in an hour. Therefore, this represents a worse than typical case and is a conservative calculation.

The calculations and the noise propagation to neighboring properties were performed using Predictor-LimA noise mapping software by Softnoise GmbH. Figure 4 shows the model superimposed over an aerial photo of the site. The grey shapes show buildings. The rooftop HVAC equipment are the red stars in boxes; the loading dock events are the red stars distributed along the expected location of the loading dock along the south side of the building. The source data is shown in Table 9. See Appendix E for model input data.

Table 9 – Sound Source Parameters used for Calculations

Events	Elevation (ft)	Sound Power Level (dBA)	Duration
Rooftop Mechanical			
Air Handing Units	48	95	continuous
Exhaust fans	48	82	continuous
Loading Dock			
Truck Driving Off	12	104	1 min
Truck Exiting Area	12	105	15 sec
Truck Idling	12	105	5 min
Truck Back-up	12	107	30 sec
Loading Dock – Pull-in	4	108	1 min
Loading Dock – Door Slam	4	116	2 s

The project drawings indicate a perimeter screen wall, which is shown on the drawings as an 8-foot-high concrete wall, with a sliding tubular steel gate at the east end of the loading dock, as shown in Figure 5. The results of the model calculations are shown in Table 10, along with the threshold of significance (see section 3.1.1). The tubular gate does not provide significant acoustical benefit and was modeled as an opening. The hourly noise level with the tubular gate exceeded the significance threshold at one receptor location. Therefore, the model was modified with a solid gate at several heights. With an 8-foot-high solid screen wall and gate, the significance threshold is not exceeded at all locations, and this impact is less than significant with this mitigation.

Table 10 – Noise Model Results, hourly sound level (dBA Leq)

Location	Threshold of Significance	Tubular gate	Solid gate, 6’	Solid gate, 8’
R1	50	50	50	50
R2		54	51	50
R3		50	49	48
R4		47	47	47

The operational noise will also cause an increase in the ambient noise level at the site. The calculated hourly noise level with mitigation for the worst-case condition (i.e., 50 dBA) was added to the existing hourly noise level (see Table 8) and the resultant CNEL was calculated. This is a conservative estimate as the hourly noise level from operational noise was calculated using a greater than average number of trucks, and for most hours the operational noise would be lower. The calculated increase in CNEL was 0.9 dB, which is less than the threshold of significance of 3 dB (see section 3.1.1) and therefore less than significant with mitigation.

Figure 4 –Noise Model

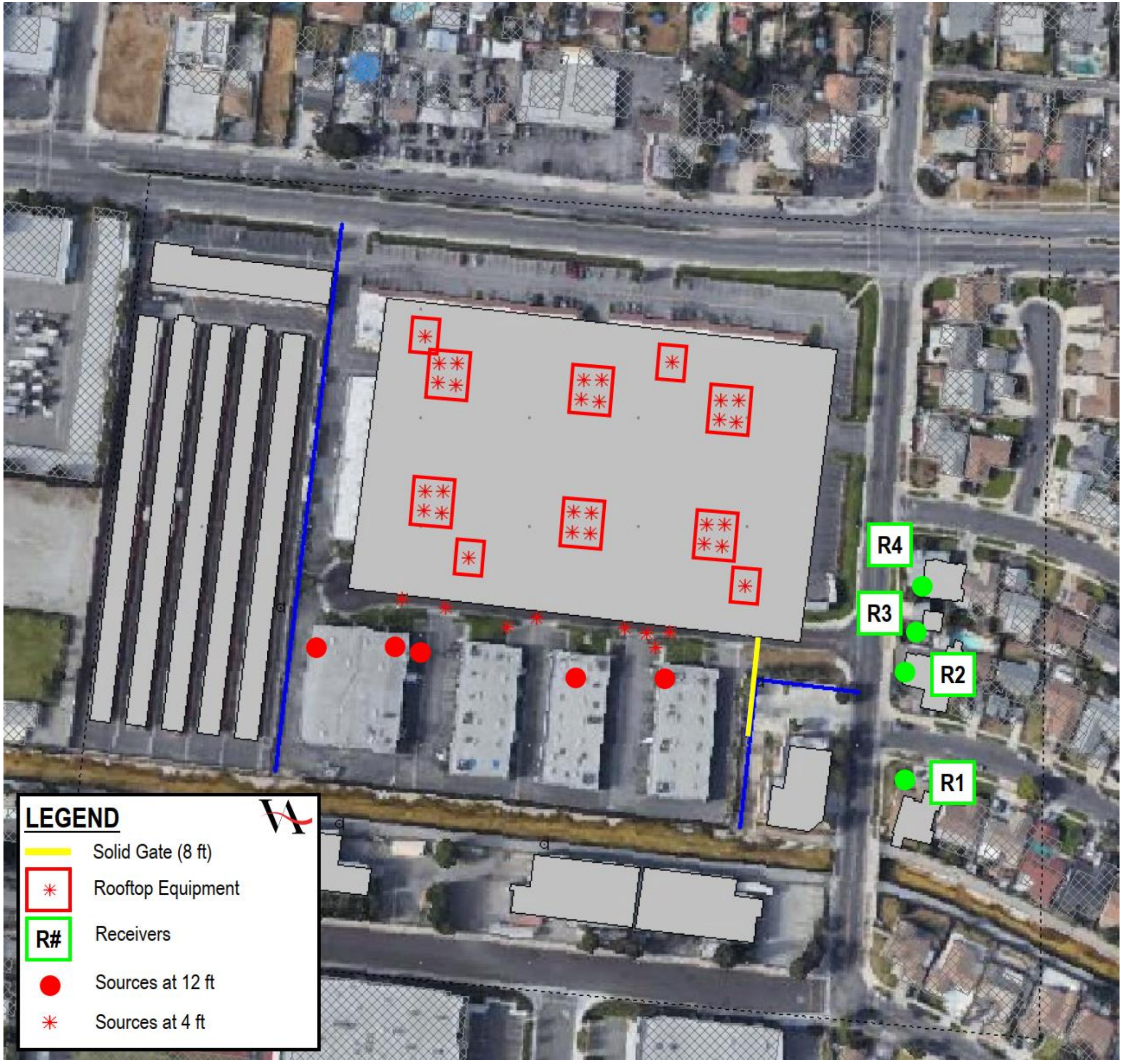
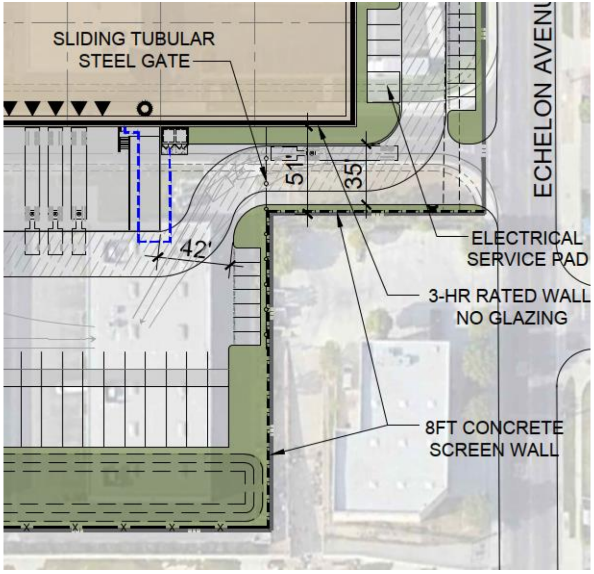


Figure 5 – Screen wall and gate at loading dock



Mitigation 1: The screen wall and sliding gate shown at the east side of the loading dock area shall be solid, without holes, slats, or gaps, and shall be a minimum of 8 feet high. The gate shall remain closed when vehicles are not passing through it.

3.2.4 Temporary Increase in Ambient Noise (Construction)

Construction of the project will generate temporary increased noise levels at the property line of the project site. A construction noise assessment was performed to evaluate the significance of this impact. Two nearby receptor locations in residential zones were defined as C1 and C2; see Figure 6. The construction equipment and data are described in Appendix B, and the results are shown in Table 11.

Figure 6 – Construction Noise Receptor Locations

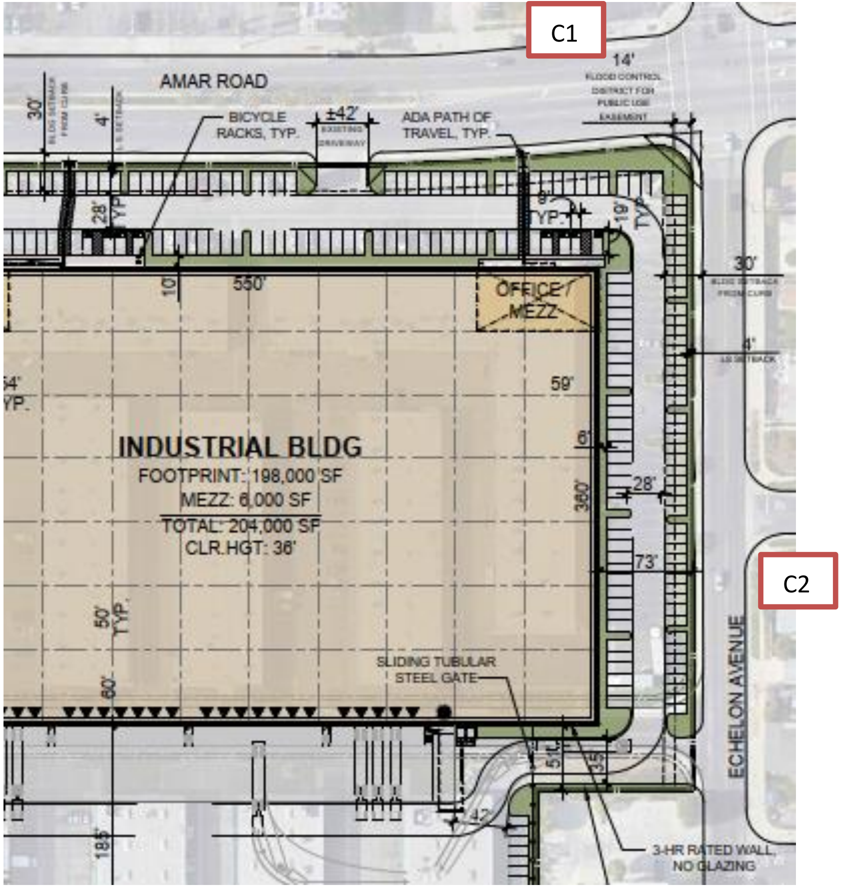


Table 11 – Construction Noise

Location	Phase	8-hr sound level (Leq)
C1	Demolition and grading	77 dBA
C2		79 dBA
C1	Foundation and building construction	78 dBA
C2		78 dBA

The construction noise is calculated to be below the threshold of 80 dBA 8-hr equivalent noise level, and therefore this impact is less than significant.

3.2.5 Impact 1 Summary

The impact of the items of potential increase in ambient noise level is summarized in Table 12. The overall impact is less than significant with mitigation incorporated.

Table 12 – Impact 1 Summary

Activity	Type	Noise Impact
Off-site Traffic Noise	Permanent	No impact
Operational Noise	Permanent	Less than significant with mitigation
Construction Noise	Temporary	Less than significant

3.3 Impact 2. Increase in Ground-borne vibration

Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?

3.3.1 Operational Vibration

The project is not anticipated to contain any sources of significant ground-borne vibration during operations, based on the project's activities indicated in section 3.2.3. No impact is anticipated.

3.3.2 Temporary Vibration

Construction of the project will generate temporary increased ground vibration. A construction vibration assessment was performed to evaluate the significance of this impact. The receptor locations are the same as for the construction noise study (see section 3.2.4 and Figure 6). The construction equipment and data are described in Appendix C, and the results are shown in Table 13.

Table 13 – Construction Vibration

Location	Phase	PPV
C1	Demolition and grading	0.005
C2		0.008
C1	Foundation and building construction	0.005
C2		0.008

The predicted vibration levels are below the threshold of 0.2 PPV, and therefore this impact is less than significant.

3.3.3 Impact 2 Summary

The impact of the items of potential increase in ground-borne vibration is summarized in Table 14. The overall impact is less than significant.

Table 14 – Impact 2 Summary

Activity	Type	Noise Impact
Operational Vibration	Permanent	No impact
Construction Vibration	Temporary	Less than significant

3.4 Impact 3. Airport noise exposure

For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The project is not within the land use plan of any airport, nor within two miles of a public airport. Therefore there is no impact.

4.0 SUMMARY

4.1 Summary of significance of impacts

CEQA Noise Impact Question Would the project result in:		No Impact	Less Than Significant	Less Than Significant with Mitigation	Potentially Significant
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b)	Generation of excessive ground-borne vibration or ground-borne noise levels?		X		
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	X			

4.2 Summary of Mitigation Measures

Mitigation 1: The screen wall and sliding gate shown at the east side of the loading dock area shall be solid, without holes, slats, or gaps, and shall be a minimum of 8 feet high. The gate shall remain closed when vehicles are not passing through it.

Appendix A – Definitions of Noise-Related Terms

Term	Definition
Decibel, dB	A unit describing the amplitude of sound equivalent to 20 times the logarithm, to the base 10, of the ratio of the pressure of the sound to the reference pressure of 20 μPa.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured in an A-weighting filter network. The A-weighting de-emphasizes the very low frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are in the A-weighted scale.
L_0 (L_{max}), L_2, L_8, L_{25}, L_{50}	The A-weighted noise levels that are exceeded 0 percent (maximum noise level), 2 percent, 8 percent, 25 percent, and 50 percent of the time during the measurement period.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the stated measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 P.M. to 10:00 P.M., and after addition of 10 decibels to noise levels in the night between 10:00 P.M. and 7:00 A.M.
Day-Night Noise Level, DNL, Ldn	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 P.M. and 7:00 A.M.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Impulsive Noise	Sound of short duration. Typically associated with an abrupt onset and rapid decay (i.e., gunshots, etc.).
Pure Tones	A sound wave, residing over a small range of frequencies, which has a sinusoidal behavior over time.
VdB	Unit of measurement used by FHWA to describe ground-borne vibration. Equivalent to 20 times the logarithm, to the base 10, of the ratio of the root mean square ground-borne velocity to the reference of reference of $1x10^{-6}$ in/sec.

Appendix B – Construction Noise

Phase: Demolition and Grading

Equipment	Reference Equipment from Database	Qty	Reference sound pressure level @ 50 ft	Utilization	Receptor C1		Receptor C2	
					Dist. (ft)	SPL	Dist. (ft)	SPL
Excavator	Excavator	1	85	40%	180	70	130	73
Excavator	Excavator	1	85	40%	280	66	240	67
Excavator	Excavator	1	85	40%	280	66	240	67
Excavator	Excavator	1	85	40%	350	64	340	64
Skid steer	Loader	1	80	100%	180	69	130	72
Wheel loader	Loader	1	80	100%	280	65	240	66
Scraper	Scraper	1	87	40%	280	68	240	70
Dozer	Dozer	1	85	40%	280	66	240	67
Sweeper	Vacuum Street Sweeper	1	82	10%	180	61	130	64
Dump truck	Dump Truck	1	84	40%	280	65	240	66
				Total SPL (dBA)		**77**		**79**

Phase: Foundation and Building Construction

Equipment	Reference Equipment from Database	Qty	Reference sound pressure level @ 50 ft	Utilization	Receptor C1		Receptor C2	
					Dist. (ft)	SPL	Dist. (ft)	SPL
Loader	Loader	1	80	100%	280	65	240	66
Forklift	Man Lift	1	85	20%	280	63	240	64
Generator	Generator	1	82	50%	180	68	130	71
Compressor	Compressor (air)	1	82	40%	280	63	240	64
Back-hoe	Backhoe	1	82	40%	280	63	240	64
Haul Truck	Truck	1	88	100%	180	77	130	74
Concrete Truck	Concrete Mixer Truck	1	85	40%	280	66	240	67
				Total SPL (dBA)		**78**		**78**

Appendix C – Construction Vibration

Phase: Demolition and Grading

Equipment	Reference Equipment from Database	Qty	Reference PPF (in/sec) @ 25 ft	Receptor C1		Receptor C2	
				Dist. (ft)	PPV	Dist. (ft)	PPV
Excavator	Large bulldozer	1	0.089	180	0.005	130	0.008
Excavator	Large bulldozer	1	0.089	280	0.002	240	0.003
Excavator	Large bulldozer	1	0.003	280	0.000	240	0.000
Excavator	Small bulldozer	1	0.089	350	0.002	340	0.002
Skid steer		1	0.089	180	0.005	130	0.008
Wheel loader	Large bulldozer	1	0.089	280	0.002	240	0.003
Scraper	Large bulldozer	1	0.089	280	0.002	240	0.003
Dozer	Large bulldozer	1	0.076	280	0.002	240	0.003
Sweeper	Large bulldozer	1	0.089	180	0.005	130	0.008
Dump truck	Loaded trucks	1	0.076	280	0.002	240	0.003
			Max PPV		**0.005**		**0.008**

Phase: Foundation and Building Construction

Equipment	Reference Equipment from Database	Qty	Reference PPV (in/sec) @ 25 ft	Receptor C1		Receptor C2	
				Dist. (ft)	PPV	Dist. (ft)	PPV
Loader	Large bulldozer	1	0.089	180	0.005	130	0.008
Forklift	Small bulldozer	1	0.003	280	0.000	240	0.000
Generator	N/a	1	--	--	--	--	--
Compressor	N/a	1	--	--	--	--	--
Back-hoe	Large bulldozer	1	0.089	280	0.002	240	0.003
Haul Truck	Loaded truck	1	0.076	180	0.004	130	0.006
Concrete Truck	Loaded truck	1	0.076	280	0.002	240	0.003
			Max PPV		**0.005**		**0.008**

Appendix D – Memorandum of Project Trip Generation

FEHR & PEERS

Memorandum

Date: July 5, 2023

To: Kori Anderson | Allen Matkins

From: Eneyda Hernandez, Ryan Liu, PE and Tom Gaul | Fehr & Peers

Subject: 16008 Amar Road Trip Generation Estimate

LA22-3422

This technical memorandum presents a trip generation analysis for the proposed project ("Project") located at 16008 Amar Road in the City of Industry, California. Trip generation for the Project was calculated in accordance with the City of Industry's Transportation Study Guidelines[1].

Project Description

The Project Site is located on the south side of Amar Road between Greycliff Avenue and Echelon Avenue, addressed as 16008 Amar Road. The Project proposes to demolish the existing land uses, which consist of 101,710 square feet (sf) of industrial space and 48,230 sf of retail space. The Project would construct 205,460 sf of fulfillment center space.

The Project Site is surrounded by other warehouse and commercial development to the south and west, commercial land uses to the north, and residential land uses to the east. The neighboring developments would not be part of the Project.

Project Trip Generation

Trip generation rates from the Institute of Transportation Engineers' (ITE) *Trip Generation, 11th Edition*, 2021 were used to estimate the number of trips associated with the Project. The High-Cube Fulfillment Center Warehouse (Non-Sort) land use category (#155) was used for the proposed fulfillment center space. For the existing uses, the General Light Industrial land use category (#110) and the Strip Retail Plaza land use category (#220) were used. The Project's trip generation estimates are presented in **Table 1**. As noted in Table 1, the Project is expected to result in a net reduction of 1,436 daily vehicle trips, a net reduction of 101 vehicle trips during the AM peak hour, and a net reduction of 193 vehicle trips during the PM peak hour.

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[1] https://www.cityofindustry.org/home/showpublisheddocument/8497/637890701348530000

TABLE 1
16008 AMAR ROAD PROJECT
TRIP GENERATION ESTIMATE

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]							Estimated Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				Rate	In%	Out%	Rate	In%	Out%		In	Out	Total	In	Out	Total
PROPOSED PROJECT																
High-Cube Fulfillment Center Warehouse (Non-Sort)	155	205.46 ksf	1.81	0.15	81%	19%	0.16	39%	61%	372	25	6	31	13	20	33
Net External Vehicle Trips										372	25	6	31	13	20	33
TOTAL PROJECT EXTERNAL VEHICLE TRIPS										372	25	6	31	13	20	33
EXISTING USE CREDIT																
Light Industrial	110	101.71 ksf	4.87	0.74	88%	12%	0.65	14%	86%	495	66	9	75	9	57	66
Net External Vehicle Trips										495	66	9	75	9	57	66
Retail (Strip Retail Plaza <40ksf) [b]	822	48.23 ksf	54.45	2.36	60%	40%	6.59	50%	50%	2,626	68	46	114	159	159	318
Total Driveway Trips										2,626	68	46	114	159	159	318
Less: Pass-by [c]			*50%*	*50%*			*50%*			*(1,313)*	*(34)*	*(23)*	*(57)*	*(79)*	*(79)*	*(158)*
Net External Vehicle Trips										1,313	34	23	57	80	80	160
TOTAL EXISTING USE CREDIT										1,808	100	32	132	89	137	226
NET INCREMENTAL EXTERNAL TRIPS										-1,436	-75	-26	-101	-76	-117	-193

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 11th Edition* , 2021

[b] While over 40ksf of retail space exists to be demolished, ITE Land Use category 822 (Strip Retail Plaza <40ksf) was used due to the lack of an anchor retail space and comparatively lower trip rates (conservative analysis).

[c] The pass-by adjustment is based on information from ITE and Attachment J of LADOT's *Transportation Assessment Guidelines* , August 2022.

Appendix E – Model input data

```
Model:        Solid gate
Group:        (main group)
Listing of:   Barriers, for method Industrial noise - LimA - ISO 9613

Name        Desc.       ISO H  ISO Terr.  HDef.       Type  Cantilever extension  Cantilever height  Floor  Refl.L 63
Barrier                  4.00       0.00  Relative  Normal                  0.00               0.00      0       0.80
Barrier                  2.00       0.00  Relative  Normal                  0.00               0.00      0       0.80
Solid Gate               2.50       0.00  Relative  Normal                  0.00               0.00      0       0.80
```

```
Model:        Solid gate
Group:        (main group)
Listing of:   Barriers, for method Industrial noise - LimA - ISO 9613

Name        Refl.L 125  Refl.L 250  Refl.L 500  Refl.L 1k  Refl.L 2k  Refl.L 4k  Refl.L 8k  Refl.R 63  Refl.R 125
Barrier           0.80        0.80        0.80       0.80       0.80       0.80       0.80       0.80        0.80
Barrier           0.80        0.80        0.80       0.80       0.80       0.80       0.80       0.80        0.80
Solid Gate        0.80        0.80        0.80       0.80       0.80       0.80       0.80       0.80        0.80
```

```
Model:        Solid gate
Group:        (main group)
Listing of:   Barriers, for method Industrial noise - LimA - ISO 9613

Name        Refl.R 250  Refl.R 500  Refl.R 1k  Refl.R 2k  Refl.R 4k  Refl.R 8k
Barrier           0.80        0.80       0.80       0.80       0.80       0.80
Barrier           0.80        0.80       0.80       0.80       0.80       0.80
Solid Gate        0.80        0.80       0.80       0.80       0.80       0.80
```

Model: Solid gate
Group: (main group)
Listing of: Buildings, for method Industrial noise - LimA - ISO 9613

Name	Desc.	Height	Terrain L	HDef.	Function	Bld.type	Embankment	Refl. 63	Refl. 125	Refl. 250
Pet Shop	0.01m (Outside)	5.00	0.00	Relative			No	0.80	0.80	0.80
B1	0.01m (Outside)	6.00	0.00	Relative			No	0.80	0.80	0.80
B2	0.01m (Outside)	6.00	0.00	Relative			No	0.80	0.80	0.80
B3	0.01m (Outside)	6.00	0.00	Relative			No	0.80	0.80	0.80
B4	0.01m (Outside)	6.00	0.00	Relative			No	0.80	0.80	0.80
B5	0.01m (Outside)	5.00	0.00	Relative			No	0.80	0.80	0.80
B6	0.01m (Outside)	5.00	0.00	Relative			No	0.80	0.80	0.80
B7	0.01m (Outside)	5.00	0.00	Relative			No	0.80	0.80	0.80
B7	0.01m (Outside)	5.00	0.00	Relative			No	0.80	0.80	0.80
B8	0.01m (Outside)	5.00	0.00	Relative			No	0.80	0.80	0.80
R1	0.01m (Outside)	4.00	0.00	Relative			No	0.80	0.80	0.80
R2	0.01m (Outside)	4.00	0.00	Relative			No	0.80	0.80	0.80
R3	0.01m (Outside)	3.00	0.00	Relative			No	0.80	0.80	0.80
R4	0.01m (Outside)	4.00	0.00	Relative			No	0.80	0.80	0.80
PS		14.00	0.00	Relative			No	0.80	0.80	0.80
B9	0.01m (Outside)	4.00	0.00	Relative			No	0.80	0.80	0.80

Model: Solid gate
Group: (main group)
Listing of: Buildings, for method Industrial noise - LimA - ISO 9613

Name	Refl. 500	Refl. 1k	Refl. 2k	Refl. 4k	Refl. 8k
Pet Shop	0.80	0.80	0.80	0.80	0.80
B1	0.80	0.80	0.80	0.80	0.80
B2	0.80	0.80	0.80	0.80	0.80
B3	0.80	0.80	0.80	0.80	0.80
B4	0.80	0.80	0.80	0.80	0.80
B5	0.80	0.80	0.80	0.80	0.80
B6	0.80	0.80	0.80	0.80	0.80
B7	0.80	0.80	0.80	0.80	0.80
B7	0.80	0.80	0.80	0.80	0.80
B8	0.80	0.80	0.80	0.80	0.80
R1	0.80	0.80	0.80	0.80	0.80
R2	0.80	0.80	0.80	0.80	0.80
R3	0.80	0.80	0.80	0.80	0.80
R4	0.80	0.80	0.80	0.80	0.80
PS	0.80	0.80	0.80	0.80	0.80
B9	0.80	0.80	0.80	0.80	0.80

```
Model:        Solid gate
Group:        (main group)
Listing of:   Receivers, for method Industrial noise - LimA - ISO 9613

Name  Desc.  Terrain L  HDef.      Height A  Height B  Height C  Height D  Height E  Height F
C1                0.00  Relative       1.50        --        --        --        --        --
R1                0.00  Relative       1.50        --        --        --        --        --
R2                0.00  Relative       1.50        --        --        --        --        --
R3                0.00  Relative       1.50        --        --        --        --        --
R4                0.00  Relative       1.50        --        --        --        --        --

C2                0.00  Relative       1.50        --        --        --        --        --
C3                0.00  Relative       1.50        --        --        --        --        --
C4                0.00  Relative       1.50        --        --        --        --        --
```

```
Model:        Solid gate
Group:        (main group)
Listing of:   Point sources, for method Industrial noise - LimA - ISO 9613

Name        Desc.    Height  Terrain L  HDef.                     Type    DI  DI_Horz  DI_Vert   DI(0)  DI(10)  DI(20)
Pull in                1.20       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
back up                3.60       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
door slam              1.20       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
Exiting                3.60       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
Pull-in                1.20       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0

Idling                 3.60       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
Drivingoff             3.60       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
Drivingoff             3.60       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
door slam              1.20       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
door slam              1.20       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0

back up                3.60       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
Idling                 3.60       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
Pull in                1.20       0.00  Relative  Normal point source  none        0        0     0.0     0.0     0.0
AHU1                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
EF1                   14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0

AHU2                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU3                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU4                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
EF1                   14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
EF1                   14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0

EF1                   14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU1                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU2                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU3                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU4                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0

AHU1                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU2                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU3                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU4                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU1                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0

AHU2                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU3                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU4                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU1                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU2                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0

AHU3                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU4                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU1                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU2                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
AHU3                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0

AHU4                  14.50       0.00  Absolute  Normal point source  none        0        0     0.0     0.0     0.0
```

```
Model:        Solid gate
Group:        (main group)
Listing of:   Point sources, for method Industrial noise - LimA - ISO 9613

Name        DI(30)  DI(40)  DI(50)  DI(60)  DI(70)  DI(80)  DI(90)  DI(100)  DI(110)  DI(120)  DI(130)  DI(140)  DI(150)
Pull in        0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
back up        0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
door slam      0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
Exiting        0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
Pull-in        0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0

Idling         0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
Drivingoff     0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
Drivingoff     0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
door slam      0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
door slam      0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0

back up        0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
Idling         0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
Pull in        0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU1           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
EF1            0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0

AHU2           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU3           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU4           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
EF1            0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
EF1            0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0

EF1            0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU1           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU2           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU3           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU4           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0

AHU1           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU2           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU3           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU4           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU1           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0

AHU2           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU3           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU4           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU1           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU2           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0

AHU3           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU4           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU1           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU2           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
AHU3           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0

AHU4           0.0     0.0     0.0     0.0     0.0     0.0     0.0      0.0      0.0      0.0      0.0      0.0      0.0
```

Model: Solid gate
Group: (main group)
Listing of: Point sources, for method Industrial noise - LimA - ISO 9613

Name	DI(160)	DI(170)	DI(180)	Ca(D)	Ca(E)	Ca(N)	Weighting	No refl.	No building	No ind.site	Lw 63
Pull in	0.0	0.0	0.0	10.00	--	--	Z	No	No	No	106.00
back up	0.0	0.0	0.0	13.01	--	--	Z	No	No	No	103.00
door slam	0.0	0.0	0.0	25.23	--	--	Z	No	No	No	107.00
Exiting	0.0	0.0	0.0	16.02	--	--	Z	No	No	No	103.00
Pull-in	0.0	0.0	0.0	10.00	--	--	Z	No	No	No	106.00
Idling	0.0	0.0	0.0	3.01	--	--	Z	No	No	No	101.00
Drivingoff	0.0	0.0	0.0	10.00	--	--	Z	No	No	No	99.87
Drivingoff	0.0	0.0	0.0	10.00	--	--	Z	No	No	No	99.87
door slam	0.0	0.0	0.0	25.23	--	--	Z	No	No	No	107.00
door slam	0.0	0.0	0.0	25.23	--	--	Z	No	No	No	107.00
back up	0.0	0.0	0.0	13.01	--	--	Z	No	No	No	103.00
Idling	0.0	0.0	0.0	3.01	--	--	Z	No	No	No	101.14
Pull in	0.0	0.0	0.0	10.00	--	--	Z	No	No	No	106.29
AHU1	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
EF1	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	78.00
AHU2	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU3	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU4	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
EF1	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	78.00
EF1	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	78.00
EF1	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	78.00
AHU1	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU2	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU3	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU4	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU1	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU2	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU3	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU4	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU1	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU2	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU3	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU4	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU1	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU2	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU3	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU4	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU1	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU2	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU3	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00
AHU4	0.0	0.0	0.0	0.00	--	--	Z	No	No	No	79.00

```
Model:         Solid gate
Group:         (main group)
Listing of:    Point sources, for method Industrial noise - LimA - ISO 9613

Name           Lw 125    Lw 250    Lw 500     Lw 1k     Lw 2k     Lw 4k     Lw 8k    Red 63   Red 125   Red 250   Red 500    Red 1k
Pull in         98.00    100.00     95.00     92.00     91.00     93.00     94.00      0.00      0.00      0.00      0.00      0.00
back up         98.00     93.00     93.00    100.00     97.00     98.00     96.00      0.00      0.00      0.00      0.00      0.00
door slam      107.00    108.00    109.00    109.00    107.00    100.00     94.00      0.00      0.00      0.00      0.00      0.00
Exiting         98.00     94.00     92.00     90.00     86.00     81.00     74.00      0.00      0.00      0.00      0.00      0.00
Pull-in         98.00    100.00     95.00     92.00     91.00     93.00     94.00      0.00      0.00      0.00      0.00      0.00

Idling          99.00     97.00     97.00     87.00     82.00     78.00     70.00      0.00      0.00      0.00      0.00      0.00
Drivingoff      98.60     95.42     95.94     93.96     89.05     84.24     77.36      0.00      0.00      0.00      0.00      0.00
Drivingoff      98.60     95.42     95.94     93.96     89.05     84.24     77.36      0.00      0.00      0.00      0.00      0.00
door slam      107.00    108.00    109.00    109.00    107.00    100.00     94.00      0.00      0.00      0.00      0.00      0.00
door slam      107.00    108.00    109.00    109.00    107.00    100.00     94.00      0.00      0.00      0.00      0.00      0.00

back up         98.00     93.00     93.00    100.00     97.00     98.00     96.00      0.00      0.00      0.00      0.00      0.00
Idling          98.53     96.61     96.87     87.12     81.85     78.28     70.40      0.00      0.00      0.00      0.00      0.00
Pull in         98.03     99.98     94.97     92.28     91.23     93.43     93.50      0.00      0.00      0.00      0.00      0.00
AHU1            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
EF1             81.00     84.00     74.00     70.00     68.00     65.00     61.00     -3.00     -3.00     -3.00     -3.00     -3.00

AHU2            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU3            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU4            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
EF1             81.00     84.00     74.00     70.00     68.00     65.00     61.00     -3.00     -3.00     -3.00     -3.00     -3.00
EF1             81.00     84.00     74.00     70.00     68.00     65.00     61.00     -3.00     -3.00     -3.00     -3.00     -3.00

EF1             81.00     84.00     74.00     70.00     68.00     65.00     61.00     -3.00     -3.00     -3.00     -3.00     -3.00
AHU1            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU2            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU3            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU4            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00

AHU1            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU2            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU3            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU4            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU1            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00

AHU2            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU3            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU4            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU1            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU2            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00

AHU3            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU4            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU1            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU2            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
AHU3            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00

AHU4            94.00     96.00     93.00     89.00     85.00     77.00     70.00      0.00      0.00      0.00      0.00      0.00
```

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Model:        Solid gate
Group:        (main group)
Listing of:   Point sources, for method Industrial noise - LimA - ISO 9613

Name          Red 2k   Red 4k   Red 8k
_______________________________________
Pull in         0.00     0.00     0.00
back up         0.00     0.00     0.00
door slam       0.00     0.00     0.00
Exiting         0.00     0.00     0.00
Pull-in         0.00     0.00     0.00

Idling          0.00     0.00     0.00
Drivingoff      0.00     0.00     0.00
Drivingoff      0.00     0.00     0.00
door slam       0.00     0.00     0.00
door slam       0.00     0.00     0.00

back up         0.00     0.00     0.00
Idling          0.00     0.00     0.00
Pull in         0.00     0.00     0.00
AHU1            0.00     0.00     0.00
EF1            -3.00    -3.00    -3.00

AHU2            0.00     0.00     0.00
AHU3            0.00     0.00     0.00
AHU4            0.00     0.00     0.00
EF1            -3.00    -3.00    -3.00
EF1            -3.00    -3.00    -3.00

EF1            -3.00    -3.00    -3.00
AHU1            0.00     0.00     0.00
AHU2            0.00     0.00     0.00
AHU3            0.00     0.00     0.00
AHU4            0.00     0.00     0.00

AHU1            0.00     0.00     0.00
AHU2            0.00     0.00     0.00
AHU3            0.00     0.00     0.00
AHU4            0.00     0.00     0.00
AHU1            0.00     0.00     0.00

AHU2            0.00     0.00     0.00
AHU3            0.00     0.00     0.00
AHU4            0.00     0.00     0.00
AHU1            0.00     0.00     0.00
AHU2            0.00     0.00     0.00

AHU3            0.00     0.00     0.00
AHU4            0.00     0.00     0.00
AHU1            0.00     0.00     0.00
AHU2            0.00     0.00     0.00
AHU3            0.00     0.00     0.00

AHU4            0.00     0.00     0.00
```

APPENDIX K

Vehicle Miles of Travel (VMT) Assessment for 15940-16016 Amar Road and 15940, 15941, 16000, 16023, and 16040 Kaplan Avenue

CNC
ENGINEERING

MEMORANDUM

TO: Kathy Tai, City of Industry

FROM: Upendra Joshi, CNC Engineering

DATE: APRIL 5, 2023

JOB NO.: JN 9395

SUBJECT: Vehicle Miles of Travel (VMT) Assessment for 15940-16016 Amar Blvd, 15940,15941, 16000, 16023 & 16040 Kaplan Ave

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Project Description

Spencer B. Kallick on behalf of Amar Industry Hills, LLC is proposing a General Plan Amendment to change two parcels from Commercial to Employment. Zone Amendment to two parcels from Commercial to Industrial. A Parcel Map to consolidate seven existing parcels into one parcel. Development Plan proposing the demolition of 10 existing buildings and proposing to construct a new industrial building totaling 206,460 square feet.

VMT Assessment

One of the three project screening criteria adopted by the City is Transit Priority Area (TPA) screening. The San Gabriel Valley Council of Governments (SGVCOG) has developed an online VMT evaluation tool to assess whether a project is screened out from further VMT analysis using either the TPA screening criteria or the Low VMT Area Screening criteria. This tool was employed to analyze this project.

Findings

The analysis concluded that the project will screen out using the TPA criteria as the project is in a TPA zone and using the Low VMT Area screening criteria as the project will generate less than the City of Industry average VMT using the Total VMT per Service Population metric

The Project therefore does not require any additional VMT analysis. The attachment to this memorandum has the report from the VMT evaluation tool.

Attachment/

SGVCOG VMT Evaluation Tool Report

Project Details

Timestamp of Analysis: April 05, 2023, 11:27:24 AM

Project Name: VMT analysis for 15940-16016 Amar Blvd, 15940,15941, 16000, 16023 & 16040 Kaplan Ave for Development Plan No. 22-07.

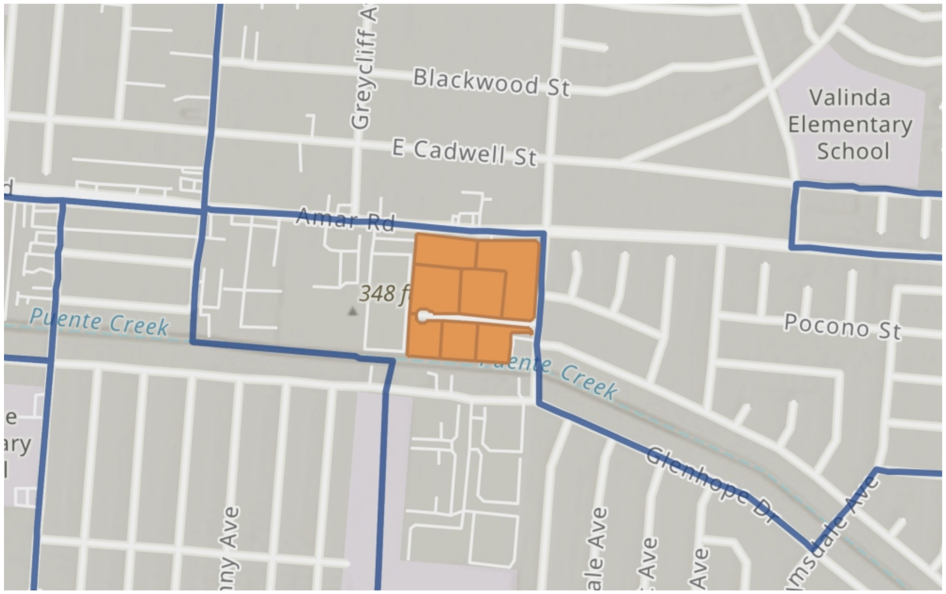
Project Description: A Parcel Map to consolidate seven existing parcels into one parcel.
The Development Plan proposes the demolition of 10 existing buildings and proposes to construct a new industrial building totaling 206,460 square feet.

Project Location

jurisdiction:
Industry

apn	TAZ
8250-001-011	22312400
8250-001-012	22312400
8250-001-013	22312400
8250-001-014	22312400
8250-001-015	22312400
8250-001-016	22312400
8250-001-017	22312400

Inside a TPA?
Yes (Pass)



Analysis Details

Data Version: SCAG Regional Travel Demand Model 2016 RTP Base Year 2012

Analysis Methodology: TAZ

Baseline Year: 2024

Project Land Use

Residential:

Single Family DU:
Multifamily DU:

Total DUs: 0

Non-Residential:

Office KSF:
Local Serving Retail KSF:
Industrial KSF: -202

Residential Affordability (percent of all units):

Extremely Low Income: 0 %
Very Low Income: 0 %
Low Income: 0 %

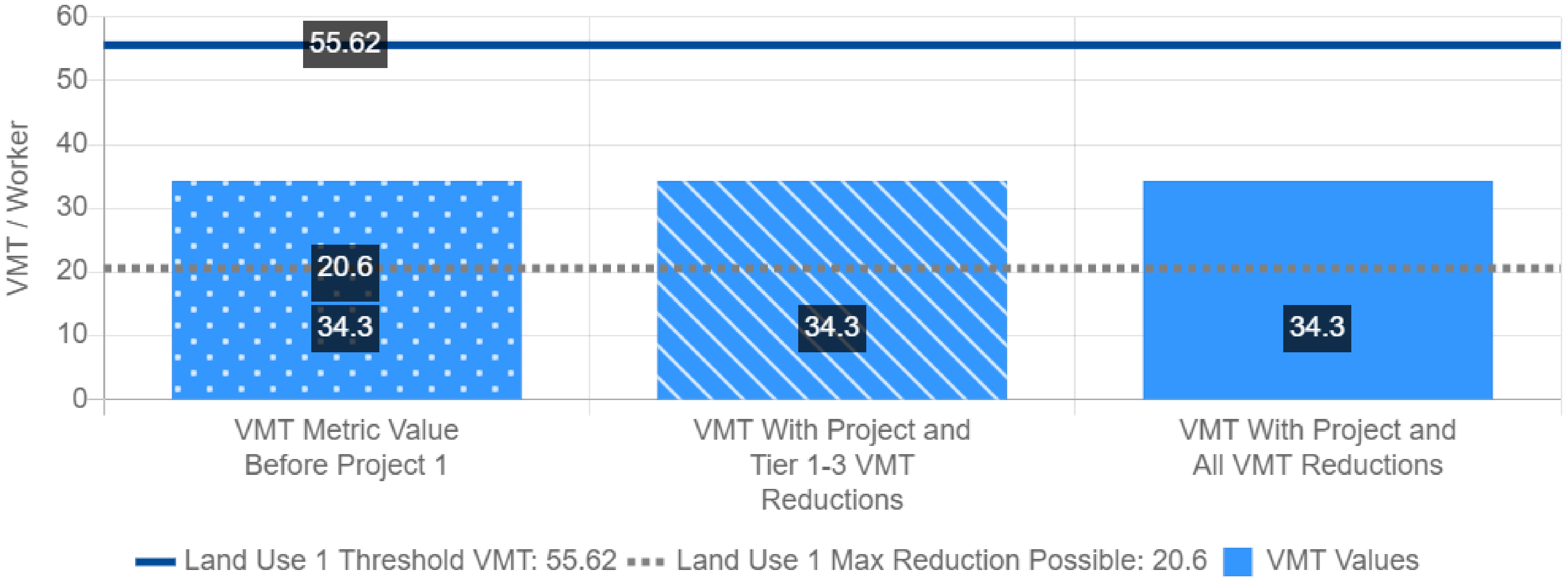
Parking:

Motor Vehicle Parking: 269
Bicycle Parking:

Industrial Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Industrial
VMT Without Project 1:	Total VMT per Service Population
VMT Baseline Description 1:	City Average
VMT Baseline Value 1:	55.62
VMT Threshold Description 1:	0%
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	34.3	34.3	34.3
Low VMT Screening Analysis	Yes (Pass)	Yes (Pass)	Yes (Pass)



Tier 2 Multimodal Infrastructure

MI03 Increase Transit Accessibility

Distance to Closest Transit Stop:	528 ft
Distance to Closest Transit Stop With Project:	528 ft

Tier 3 Parking

PK01 Limit Parking Supply

Minimum Parking Required by City Code:	254
Total Parking Spaces Available to Employees:	269
Is the Surrounding Street Parking Restricted?:	