Appendix C Air Quality

a) Wind and Climate Information
b) Ambient Air Data
c) Regional Construction Emissions - CalEEMod Output Files
d) Localized Construction Emissions - AERMOD Output Files
e) Operational Emissions - AERMOD Output Files
f) Greenhouse Gas Emissions - CalEEMod Output Files
g) SCAQMD Rule 403

Sub-Appendix a

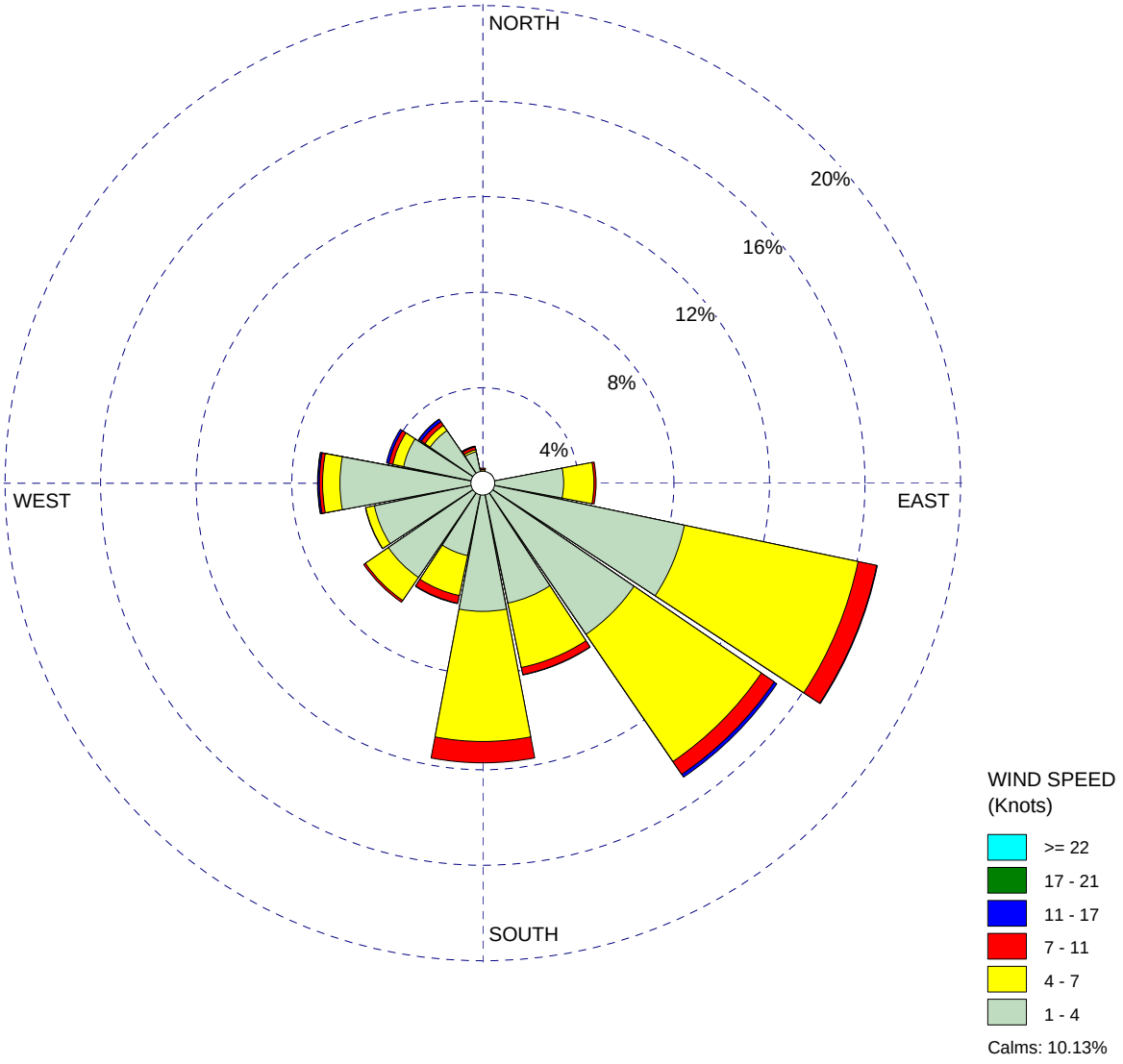
Wind and Climate Information

WIND ROSE PLOT:

Harvard-Westlake Upper School-Infrastructure Project
Burbank Wind Monitoring Station

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/1981 - 00:00** **End Date: 12/31/1981 - 23:00**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **10.13%**	TOTAL COUNT: **8760 hrs.**	
	AVG. WIND SPEED: **3.30 Knots**	DATE: **10/22/2012**	PROJECT NO.: **2012-017**

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NOTE:
To print data frame (right side), click on right frame before printing.

1981 - 2010

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
- Monthly Tabular data (~1 KB)
- NCDC 1981-2010 Normals (~3 KB)

1971 - 2000

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
- Monthly Tabular data (~1 KB)
- NCDC 1971-2000 Normals (~3 KB)

1961 - 1990

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
- Monthly Tabular data (~1 KB)
- NCDC 1961-1990 Normals (~3 KB)

Period of Record

- Station Metadata
- Station Metadata Graphics

General Climate Summary Tables
- Temperature
- Precipitation
- Heating Degree Days
- Cooling Degree Days
- Growing Degree Days

Temperature
- Daily Extremes and Averages
- Spring 'Freeze' Probabilities
- Fall 'Freeze' Probabilities
- 'Freeze Free' Probabilities
- Monthly Temperature Listings
  - Average
  - Average Maximum
  - Average Minimum
  - Extreme Maximum(*)
  - Extreme Minimum(*)

Precipitation
- Monthly Average
- Daily Extreme and Average
- Daily Average
- Precipitation Probability by Duration.
- Precipitation Probability by Quantity.
- Monthly Precipitation Listings
  - Monthly Totals
  - Daily Extreme(*)

Snowfall
- Daily Extreme and Average
- Daily Average

BURBANK VALLEY PUMP PLA, CALIFORNIA

Period of Record General Climate Summary - Temperature

Station:(041194) BURBANK VALLEY PUMP PLA

From Year=1939 To Year=2006

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.		Min. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	67.3	41.6	54.4	93	31/2003	22	29/1979	63.4	2003	45.1	1949	0.1	0.0	1.7	0.0
February	68.8	43.6	56.2	92	16/1977	27	15/1942	61.9	1954	50.7	1949	0.2	0.0	0.6	0.0
March	70.4	45.7	58.0	98	26/1988	22	07/1980	64.5	2004	52.7	1952	0.4	0.0	0.4	0.0
April	73.9	49.0	61.5	105	06/1989	32	05/1978	68.1	1989	53.4	1967	1.7	0.0	0.0	0.0
May	76.7	53.4	65.1	107	29/1984	39	21/1975	71.8	1984	60.6	1998	2.4	0.0	0.0	0.0
June	81.5	57.2	69.3	111	27/1976	43	14/1943	77.7	1981	64.0	1944	4.8	0.0	0.0	0.0
July	88.5	61.0	74.7	108	26/1943	45	02/1979	79.7	1984	69.0	1944	13.6	0.0	0.0	0.0
August	89.2	61.3	75.2	111	26/1944	46	28/1975	80.4	1994	71.7	1948	14.6	0.0	0.0	0.0
September	87.2	59.1	73.2	113	12/1971	43	26/1941	81.4	1984	67.3	1986	11.8	0.0	0.0	0.0
October	81.0	53.3	67.1	108	01/1980	33	30/1971	72.3	1991	62.7	2002	5.9	0.0	0.0	0.0
November	73.5	45.9	59.7	98	03/1976	29	30/1975	65.0	1949	54.0	1994	1.0	0.0	0.2	0.0
December	68.0	41.7	54.9	92	03/1958	22	08/1978	59.6	1958	49.3	1971	0.0	0.0	1.4	0.0
Annual	77.2	51.1	64.1	113	19710912	22	19781208	66.7	1984	61.9	1944	56.5	0.0	4.2	0.0
Winter	68.1	42.3	55.2	93	20030131	22	19781208	59.1	1981	48.6	1949	0.3	0.0	3.6	0.0
Spring	73.7	49.4	61.5	107	19840529	22	19800307	66.1	1993	58.2	1999	4.4	0.0	0.4	0.0
Summer	86.4	59.8	73.1	111	19440826	43	19430614	77.3	1981	69.1	1944	33.0	0.0	0.0	0.0
Fall	80.6	52.8	66.7	113	19710912	29	19751130	70.2	1991	63.9	1973	18.7	0.0	0.2	0.0

Table updated on Jul 28, 2006

For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons
Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May
Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

Western Regional Climate Center, wrcc@dri.edu

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NOTE:
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1961 - 1990

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
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  - Average
  - Average Maximum
  - Average Minimum
  - Extreme Maximum(*)
  - Extreme Minimum(*)

Precipitation

- Monthly Average
- Daily Extreme and Average
- Daily Average
- Precipitation Probability by Duration.

BURBANK VALLEY PUMP PLA, CALIFORNIA

Period of Record General Climate Summary - Precipitation

Station:(041194) BURBANK VALLEY PUMP PLA

From Year=1939 To Year=2006

	Precipitation											Total Snowfall		
	Mean	High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year
	in.	in.	-	in.	-	in.	dd/yyyy or yyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-
January	3.37	15.92	1995	0.00	1948	7.76	22/1943	6	4	2	1	0.1	4.7	1949
February	3.94	15.52	1998	0.00	1964	4.50	08/1993	6	4	2	1	0.0	0.0	1940
March	2.91	12.87	1978	0.00	1956	5.45	01/1983	6	4	2	1	0.0	0.5	1950
April	1.18	5.66	1965	0.00	1962	2.30	12/1956	4	2	1	0	0.0	0.0	1940
May	0.28	4.37	1998	0.00	1942	2.29	08/1977	2	1	0	0	0.0	0.0	1940
June	0.07	1.04	1993	0.00	1940	1.01	05/1993	1	0	0	0	0.0	0.0	1940
July	0.01	0.21	1986	0.00	1940	0.18	12/1992	0	0	0	0	0.0	0.0	1940
August	0.11	2.97	1977	0.00	1940	2.86	17/1977	1	0	0	0	0.0	0.0	1940
September	0.20	3.39	1976	0.00	1940	1.43	10/1976	1	1	0	0	0.0	0.0	1940
October	0.59	7.26	2004	0.00	1953	3.00	19/2004	2	1	0	0	0.0	0.0	1940
November	1.54	10.63	1965	0.00	1948	5.28	29/1970	3	2	1	0	0.0	0.0	1940
December	2.30	8.07	1940	0.00	1950	5.30	29/1965	5	3	2	1	0.0	0.0	1939
Annual	16.51	39.77	1983	3.52	1947	7.76	19430122	36	23	10	5	0.1	4.7	1949
Winter	9.62	32.33	2005	1.81	1961	7.76	19430122	17	12	6	3	0.1	4.7	1949
Spring	4.37	18.19	1983	0.00	1997	5.45	19830301	12	7	3	1	0.0	0.5	1950
Summer	0.19	2.97	1977	0.00	1940	2.86	19770817	2	0	0	0	0.0	0.0	1940
Fall	2.33	11.38	1965	0.00	1980	5.28	19701129	6	4	2	1	0.0	0.0	1940

Table updated on Jul 28, 2006

For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons
Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May
Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

Western Regional Climate Center, wrcc@dri.edu

Sub-Appendix b

Ambient Air Data

Top 4 Summary: Highest 4 Daily Maximum State 24-Hour Sulfur Dioxide Averages

at Los Angeles-North Main Street

	2009		2010		2011	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
First High:	Feb 5	0.002	Jan 12	0.002	Mar 1	0.002
Second High:	Jul 20	0.002	Dec 3	0.002	Jan 8	0.002
Third High:	Mar 19	0.002	Dec 9	0.002	Jan 31	0.002
Fourth High:	May 14	0.002	Jul 15	0.002	Jan 19	0.001
Annual Average:		0.000		0.000		*
Year Coverage:		96		95		59

◄ Shift Backward [1 year] Shift Forward ►

Notes:

Hourly sulfur dioxide measurements and related statistics are available at Los Angeles-North Main Street between 1979 and 2011. Some years in this range may not be represented.

All averages expressed in parts per million.

yellow exceeds a California ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily Maximum Hourly Ozone Measurements

at West Los Angeles-VA Hospital

	2009		2010		2011	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Aug 26	0.131	Aug 23	0.099	Sep 6	0.098
Second High:	Aug 30	0.118	Sep 26	0.098	Sep 7	0.095
Third High:	Aug 27	0.114	Sep 25	0.092	May 4	0.079
Fourth High:	Aug 29	0.108	Aug 17	0.089	Mar 31	0.075
California:						
# Days Above the Standard:	6		2		2	
California Designation Value:	0.10		0.10		0.10	
Expected Peak Day Concentration:	0.103		0.104		0.096	
National:						
# Days Above the Standard:	*1*		*0*		*0*	
Nat'l Standard Design Value:	*0.114*		*0.111*		*0.108*	
Year Coverage:	99		96		92	

◄ Shift Backward [1] Shift Forward ►

Notes:

Hourly ozone measurements and related statistics are available at West Los Angeles-VA Hospital between 1984 and 2011. Some years in this range may not be represented.

All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics*.

yellow exceeds a California ambient air quality standard. *orange* exceeds the revoked 1-hour national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements

at West Los Angeles-VA Hospital

	2009		2010		2011	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Mar 18	0.077	Dec 3	0.071	Jan 18	0.081
Second High:	Aug 26	0.070	Sep 28	0.062	Dec 29	0.068
Third High:	Oct 10	0.070	Dec 2	0.061	Apr 1	0.066
Fourth High:	Dec 15	0.070	Sep 27	0.061	Jan 25	0.063
California:						
# Days Above the Standard:	0		0		0	
Annual Average:	0.017		0.016		0.016	
Year Coverage:	93		97		96	

◄ Shift Backward [1] Shift Forward ►

Notes:

Hourly nitrogen dioxide measurements and related statistics are available at West Los Angeles-VA Hospital between 1984 and 2011. Some years in this range may not be represented.

All concentrations expressed in parts per million.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

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Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily Maximum 8-Hour Ozone Averages

at West Los Angeles-VA Hospital

	2009		2010		2011	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	Aug 30	0.094	Sep 26	0.078	Sep 6	0.068
Second High:	Aug 29	0.082	Sep 25	0.072	Sep 28	0.068
Third High:	Aug 26	0.077	Aug 18	0.071	Apr 14	0.062
Fourth High:	Aug 27	0.075	Aug 17	0.069	Oct 24	0.062
California:						
First High:	Aug 30	0.095	Sep 26	0.079	Sep 28	0.069
Second High:	Aug 29	0.083	Sep 25	0.072	Sep 6	0.068
Third High:	Aug 26	0.078	Aug 18	0.071	Apr 14	0.062
Fourth High:	Aug 27	0.076	Aug 17	0.070	Sep 7	0.062
National:						
# Days Above the Standard:		3		1		0
Nat'l Standard Design Value:		0.071		0.072		0.068
National Year Coverage:		97		97		90
California:						
# Days Above the Standard:		5		3		0
California Designation Value:		0.082		0.082		0.076
Expected Peak Day Concentration:		0.082		0.082		0.077
California Year Coverage:		97		97		89

◄ Shift Backward [1] Shift Forward ►

Notes:

Eight-hour ozone averages and related statistics are available at West Los Angeles-VA Hospital between 1984 and 2011. Some years in this range may not be represented.

All averages expressed in parts per million.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

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Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily Maximum 8-Hour Carbon Monoxide Averages

at West Los Angeles-VA Hospital

	2009		2010		2011	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	Mar 18	1.51	Dec 10	1.44	Dec 31	1.57
Second High:	Jan 7	1.40	Dec 4	1.37	Jan 17	1.28
Third High:	Oct 16	1.34	Dec 3	1.35	Dec 30	1.26
Fourth High:	Sep 23	1.30	Nov 1	1.23	Jan 19	1.24
California:						
First High:	Mar 18	1.51	Dec 10	1.44	Dec 31	1.74
Second High:	Jan 7	1.40	Dec 3	1.37	Jan 17	1.28
Third High:	Oct 16	1.34	Nov 1	1.23	Dec 30	1.26
Fourth High:	Sep 23	1.30	Dec 8	1.21	Jan 18	1.24
National:						
# Days Above the Standard:		0		0		0
California:						
# Days Above the Standard:		0		0		0
Expected Peak Day Concentration:		1.70		1.59		1.47
Year Coverage:		96		99		95

◄ Shift Backward [1] Shift Forward ►

Notes:

Eight-hour carbon monoxide averages and related statistics are available at West Los Angeles-VA Hospital between 1984 and 2011. Some years in this range may not be represented.

All averages expressed in parts per million.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily 24-Hour PM10 Averages

at Los Angeles-North Main Street

iADAM

	2009		2010		2011	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Jan 1	72.0	Jul 1	42.0	Oct 24	53.0
Second High:	Oct 28	62.0	Aug 24	41.0	Dec 29	50.0
Third High:	Mar 20	57.0	Dec 4	41.0	Oct 18	45.0
Fourth High:	Jan 7	53.0	Dec 10	41.0	Apr 15	44.0
California:						
First High:	Jan 1	70.0	Jul 1	41.0	Oct 24	53.0
Second High:	Oct 28	61.0	Dec 4	41.0	Dec 29	49.0
Third High:	Mar 20	56.0	Feb 1	40.0	Apr 15	44.0
Fourth High:	Jan 7	51.0	Aug 24	40.0	Oct 18	44.0
National:						
Estimated # Days > 24-Hour Std:	0.0		0.0		0.0	
Measured # Days > 24-Hour Std:	0		0		0	
3-Yr Avg Est # Days > 24-Hr Std:	*		*		0.0	
Annual Average:	*33.1*		*27.1*		*29.0*	
3-Year Average:	*30*		*28*		*30*	
California:						
Estimated # Days > 24-Hour Std:	24.1		*		6.5	
Measured # Days > 24-Hour Std:	4		0		1	
Annual Average:	32.5		*		28.7	
3-Year Maximum Annual Average:	33		*		29	
Year Coverage:	99		94		97	

◄ Shift Backward [1] Shift Forward ►

Notes:

Daily PM10 averages and related statistics are available at Los Angeles-North Main Street between 1988 and 2011. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

The national annual average PM10 standard was revoked in December 2006 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics*.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

All values listed above represent midnight-to-midnight 24-hour averages and may be related to an exceptional event.

State and national statistics may differ for the following reasons:

- State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.
- State statistics for 1998 and later are based on local conditions (except for sites in the South Coast Air Basin, where State statistics for 2002 and later are based on local conditions). National statistics are based on standard conditions.
- State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Top 4 Summary: Highest 4 Daily 24-Hour PM2.5 Averages

at Los Angeles-North Main Street

	2009		2010		2011	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Jan 1	61.6	Nov 17	48.6	Nov 1	69.2
Second High:	Jan 2	53.8	Feb 2	40.7	Oct 19	50.8
Third High:	Mar 19	53.0	Oct 14	39.2	Dec 31	49.3
Fourth High:	Mar 20	45.3	Feb 18	37.5	Dec 30	44.1
California:						
First High:	Jan 1	64.1	Oct 14	39.2	Dec 31	49.3
Second High:	Jan 2	53.8	Feb 18	37.5	Dec 30	44.1
Third High:	Mar 19	53.0	Dec 4	33.9	Oct 24	41.7
Fourth High:	Mar 20	46.6	Feb 1	31.3	Oct 23	39.6
National:						
Estimated # Days > 24-Hour Std:		7.0		5.0		8.1
Measured # Days > 24-Hour Std:		7		5		8
24-Hour Standard Design Value:		42		35		34
24-Hour Standard 98th Percentile:		33.9		31.3		35.8
Annual Standard Design Value:		15.8		14.4		13.5
Annual Average:		14.4		12.6		13.5
California:						
Annual Std Designation Value:		16		16		16
Annual Average:		15.6		12.6		13.3
Year Coverage:		100		100		97

◄ Shift Backward [1] Shift Forward ►

Notes:

Daily PM2.5 averages and related statistics are available at Los Angeles-North Main Street between 1999 and 2011. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

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State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

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Available Pollutants:

8-Hour Ozone | Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | State Sulfur Dioxide | Hydrogen Sulfide

Sub-Appendix c

Regional Construction Emissions - CalEEMod Output Files

Harvard Westlake School Parking Structure Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	750	Space

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	12		2.2		
		Precipitation Freq (Days)			
			33		

1.3 User Entered Comments

Land Use - A three-story parking structure consisting of 750 parking spaces development is proposed on a 5.5 acre project site.

Construction Phase - Approximate construction schedule.

Grading - It is anticipated that excavation would require the removal of approximately 135,000 cubic yards of material from site. Grading stage would require a total of 3.3 acres of land to be disturbed.

Trips and VMT - Approximately 20 workers would be on-site during the excavation stage. Grading and building construction are anticipated to have 45 onsite workers per day. Building construction is anticipated to require 22 concrete truck trips per day.

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403, the proposed project site would be water two times per day to reduce fugitive dust by 61 percent.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.78	48.50	29.06	0.07	191.00	2.20	193.20	3.46	2.20	5.66	0.00	7,015.43	0.00	0.52	0.00	7,026.29
2015	5.19	44.17	27.39	0.07	191.00	1.97	192.97	3.46	1.97	5.43	0.00	7,022.57	0.00	0.46	0.00	7,032.33
2016	2.69	17.44	14.61	0.03	0.90	1.18	1.86	0.04	1.18	1.19	0.00	3,137.08	0.00	0.24	0.00	3,142.05
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.78	48.50	29.06	0.07	187.33	2.20	189.53	1.44	2.20	3.64	0.00	7,015.43	0.00	0.52	0.00	7,026.29
2015	5.19	44.17	27.39	0.07	187.33	1.97	189.30	1.44	1.97	3.41	0.00	7,022.57	0.00	0.46	0.00	7,032.33
2016	2.69	17.44	14.61	0.03	0.90	1.18	1.86	0.04	1.18	1.19	0.00	3,137.08	0.00	0.24	0.00	3,142.05
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.20	0.00	0.20	0.00	0.00	0.00						0.00
Off-Road	5.68	46.24	25.07	0.04		2.12	2.12		2.12	2.12		4,822.39		0.51		4,833.07
Total	**5.68**	**46.24**	**25.07**	**0.04**	**0.20**	**2.12**	**2.32**	**0.00**	**2.12**	**2.12**		**4,822.39**		**0.51**		**4,833.07**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.05	0.46	0.27	0.00	0.44	0.02	0.47	0.00	0.02	0.02		80.14		0.00		80.19
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
Worker	0.05	0.05	0.57	0.00	0.12	0.00	0.13	0.00	0.00	0.01		101.13		0.01		101.25
Total	**0.10**	**0.51**	**0.84**	**0.00**	**0.56**	**0.02**	**0.60**	**0.00**	**0.02**	**0.03**		**181.27**		**0.01**		**181.44**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.08	0.00	0.08	0.00	0.00	0.00						0.00
Off-Road	5.68	46.24	25.07	0.04		2.12	2.12		2.12	2.12	0.00	4,822.39		0.51		4,833.07
Total	**5.68**	**46.24**	**25.07**	**0.04**	**0.08**	**2.12**	**2.20**	**0.00**	**2.12**	**2.12**	**0.00**	**4,822.39**		**0.51**		**4,833.07**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.05	0.46	0.27	0.00	0.44	0.02	0.47	0.00	0.02	0.02		80.14		0.00		80.19
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
Worker	0.05	0.05	0.57	0.00	0.12	0.00	0.13	0.00	0.00	0.01		101.13		0.01		101.25
Total	**0.10**	**0.51**	**0.84**	**0.00**	**0.56**	**0.02**	**0.60**	**0.00**	**0.02**	**0.03**		**181.27**		**0.01**		**181.44**

3.3 Excavation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.02	0.00	6.02	3.31	0.00	3.31						0.00
Off-Road	2.95	23.83	13.42	0.02		1.11	1.11		1.11	1.11		2,528.21		0.26		2,533.76
Total	**2.95**	**23.83**	**13.42**	**0.02**	**6.02**	**1.11**	**7.13**	**3.31**	**1.11**	**4.42**		**2,528.21**		**0.26**		**2,533.76**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.57	24.55	14.21	0.04	184.67	1.08	185.75	0.14	1.08	1.22		4,234.41		0.12		4,237.03
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
Worker	0.12	0.12	1.44	0.00	0.31	0.01	0.32	0.01	0.01	0.02		252.82		0.01		253.12
Total	**2.69**	**24.67**	**15.65**	**0.04**	**184.98**	**1.09**	**186.07**	**0.15**	**1.09**	**1.24**		**4,487.23**		**0.13**		**4,490.15**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.35	0.00	2.35	1.29	0.00	1.29						0.00
Off-Road	2.95	23.83	13.42	0.02		1.11	1.11		1.11	1.11	0.00	2,528.21		0.26		2,533.76
Total	**2.95**	**23.83**	**13.42**	**0.02**	**2.35**	**1.11**	**3.46**	**1.29**	**1.11**	**2.40**	**0.00**	**2,528.21**		**0.26**		**2,533.76**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.57	24.55	14.21	0.04	184.67	1.08	185.75	0.14	1.08	1.22		4,234.41		0.12		4,237.03
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
Worker	0.12	0.12	1.44	0.00	0.31	0.01	0.32	0.01	0.01	0.02		252.82		0.01		253.12
Total	**2.69**	**24.67**	**15.65**	**0.04**	**184.98**	**1.09**	**186.07**	**0.15**	**1.09**	**1.24**		**4,487.23**		**0.13**		**4,490.15**

3.3 Excavation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.02	0.00	6.02	3.31	0.00	3.31						0.00
Off-Road	2.80	22.21	12.72	0.02		1.02	1.02		1.02	1.02		2,528.21		0.25		2,533.45
Total	**2.80**	**22.21**	**12.72**	**0.02**	**6.02**	**1.02**	**7.04**	**3.31**	**1.02**	**4.33**		**2,528.21**		**0.25**		**2,533.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.28	21.84	12.68	0.04	184.67	0.93	185.61	0.14	0.93	1.08		4,246.62		0.11		4,248.94
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
Worker	0.12	0.11	1.32	0.00	0.31	0.01	0.32	0.01	0.01	0.02		247.74		0.01		248.03
Total	**2.40**	**21.95**	**14.00**	**0.04**	**184.98**	**0.94**	**185.93**	**0.15**	**0.94**	**1.10**		**4,494.36**		**0.12**		**4,496.97**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.35	0.00	2.35	1.29	0.00	1.29						0.00
Off-Road	2.80	22.21	12.72	0.02		1.02	1.02		1.02	1.02	0.00	2,528.21		0.25		2,533.45
Total	**2.80**	**22.21**	**12.72**	**0.02**	**2.35**	**1.02**	**3.37**	**1.29**	**1.02**	**2.31**	**0.00**	**2,528.21**		**0.25**		**2,533.45**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.28	21.84	12.68	0.04	184.67	0.93	185.61	0.14	0.93	1.08		4,246.62		0.11		4,248.94
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
Worker	0.12	0.11	1.32	0.00	0.31	0.01	0.32	0.01	0.01	0.02		247.74		0.01		248.03
Total	**2.40**	**21.95**	**14.00**	**0.04**	**184.98**	**0.94**	**185.93**	**0.15**	**0.94**	**1.10**		**4,494.36**		**0.12**		**4,496.97**

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.90	0.00	6.90	3.31	0.00	3.31						0.00
Off-Road	4.87	37.44	24.41	0.04		1.86	1.86		1.86	1.86		4,507.35		0.43		4,516.47
Total	**4.87**	**37.44**	**24.41**	**0.04**	**6.90**	**1.86**	**8.76**	**3.31**	**1.86**	**5.17**		**4,507.35**		**0.43**		**4,516.47**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
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
Worker	0.26	0.25	2.98	0.01	0.69	0.02	0.72	0.03	0.02	0.05		557.42		0.03		558.06
Total	**0.26**	**0.25**	**2.98**	**0.01**	**0.69**	**0.02**	**0.72**	**0.03**	**0.02**	**0.05**		**557.42**		**0.03**		**558.06**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.69	0.00	2.69	1.29	0.00	1.29						0.00
Off-Road	4.87	37.44	24.41	0.04		1.86	1.86		1.86	1.86	0.00	4,507.35		0.43		4,516.47
Total	**4.87**	**37.44**	**24.41**	**0.04**	**2.69**	**1.86**	**4.55**	**1.29**	**1.86**	**3.15**	**0.00**	**4,507.35**		**0.43**		**4,516.47**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
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
Worker	0.26	0.25	2.98	0.01	0.69	0.02	0.72	0.03	0.02	0.05		557.42		0.03		558.06
Total	**0.26**	**0.25**	**2.98**	**0.01**	**0.69**	**0.02**	**0.72**	**0.03**	**0.02**	**0.05**		**557.42**		**0.03**		**558.06**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.39	15.58	10.19	0.02		0.94	0.94		0.94	0.94		1,974.88		0.21		1,979.37
Total	**2.39**	**15.58**	**10.19**	**0.02**		**0.94**	**0.94**		**0.94**	**0.94**		**1,974.88**		**0.21**		**1,979.37**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.29	3.07	1.98	0.01	0.21	0.11	0.31	0.02	0.11	0.12		611.57		0.01		611.88
Worker	0.26	0.25	2.98	0.01	0.69	0.02	0.72	0.03	0.02	0.05		557.42		0.03		558.06
Total	**0.55**	**3.32**	**4.96**	**0.02**	**0.90**	**0.13**	**1.03**	**0.05**	**0.13**	**0.17**		**1,168.99**		**0.04**		**1,169.94**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.39	15.58	10.19	0.02		0.94	0.94		0.94	0.94	0.00	1,974.88		0.21		1,979.37
Total	**2.39**	**15.58**	**10.19**	**0.02**		**0.94**	**0.94**		**0.94**	**0.94**	**0.00**	**1,974.88**		**0.21**		**1,979.37**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.29	3.07	1.98	0.01	0.21	0.11	0.31	0.02	0.11	0.12		611.57		0.01		611.88
Worker	0.26	0.25	2.98	0.01	0.69	0.02	0.72	0.03	0.02	0.05		557.42		0.03		558.06
Total	**0.55**	**3.32**	**4.96**	**0.02**	**0.90**	**0.13**	**1.03**	**0.05**	**0.13**	**0.17**		**1,168.99**		**0.04**		**1,169.94**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.18	14.36	10.02	0.02		0.84	0.84		0.84	0.84		1,974.88		0.19		1,978.97
Total	**2.18**	**14.36**	**10.02**	**0.02**		**0.84**	**0.84**		**0.84**	**0.84**		**1,974.88**		**0.19**		**1,978.97**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.27	2.85	1.82	0.01	0.21	0.10	0.30	0.02	0.10	0.11		612.87		0.01		613.15
Worker	0.25	0.23	2.77	0.01	0.69	0.03	0.72	0.03	0.03	0.05		549.33		0.03		549.93
Total	**0.52**	**3.08**	**4.59**	**0.02**	**0.90**	**0.13**	**1.02**	**0.05**	**0.13**	**0.16**		**1,162.20**		**0.04**		**1,163.08**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.18	14.36	10.02	0.02		0.84	0.84		0.84	0.84	0.00	1,974.88		0.19		1,978.97
Total	**2.18**	**14.36**	**10.02**	**0.02**		**0.84**	**0.84**		**0.84**	**0.84**	**0.00**	**1,974.88**		**0.19**		**1,978.97**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.27	2.85	1.82	0.01	0.21	0.10	0.30	0.02	0.10	0.11		612.87		0.01		613.15
Worker	0.25	0.23	2.77	0.01	0.69	0.03	0.72	0.03	0.03	0.05		549.33		0.03		549.93
Total	**0.52**	**3.08**	**4.59**	**0.02**	**0.90**	**0.13**	**1.02**	**0.05**	**0.13**	**0.16**		**1,162.20**		**0.04**		**1,163.08**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.29	14.10	10.19	0.02		1.18	1.18		1.18	1.18		1,458.82		0.21		1,463.15
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**2.29**	**14.10**	**10.19**	**0.02**		**1.18**	**1.18**		**1.18**	**1.18**		**1,458.82**		**0.21**		**1,463.15**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
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
Worker	0.04	0.04	0.49	0.00	0.12	0.00	0.13	0.00	0.00	0.01		97.66		0.01		97.77
Total	**0.04**	**0.04**	**0.49**	**0.00**	**0.12**	**0.00**	**0.13**	**0.00**	**0.00**	**0.01**		**97.66**		**0.01**		**97.77**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.29	14.10	10.19	0.02		1.18	1.18		1.18	1.18	0.00	1,458.82		0.21		1,463.15
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**2.29**	**14.10**	**10.19**	**0.02**		**1.18**	**1.18**		**1.18**	**1.18**	**0.00**	**1,458.82**		**0.21**		**1,463.15**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
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
Worker	0.04	0.04	0.49	0.00	0.12	0.00	0.13	0.00	0.00	0.01		97.66		0.01		97.77
Total	**0.04**	**0.04**	**0.49**	**0.00**	**0.12**	**0.00**	**0.13**	**0.00**	**0.00**	**0.01**		**97.66**		**0.01**		**97.77**

Harvard Westlake School Parking Structure Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	750	Space

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	12		2.2		
		Precipitation Freq (Days)	33		

1.3 User Entered Comments

Land Use - A three-story parking structure consisting of 750 parking spaces development is proposed on a 5.5 acre project site.

Construction Phase - Approximate construction schedule.

Grading - It is anticipated that excavation would require the removal of approximately 135,000 cubic yards of material from site. Grading stage would require a total of 3.3 acres of land to be disturbed.

Trips and VMT - Approximately 20 workers would be on-site during the excavation stage. Grading and building construction are anticipated to have 45 onsite workers per day. Building construction is anticipated to require 22 concrete truck trips per day.

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403, the proposed project site would be water two times per day to reduce fugitive dust by 61 percent.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.78	49.80	30.15	0.07	191.00	2.21	193.21	3.46	2.21	5.67	0.00	6,976.60	0.00	0.52	0.00	6,987.46
2015	5.26	45.27	27.80	0.07	191.00	1.97	192.98	3.46	1.97	5.44	0.00	6,983.48	0.00	0.46	0.00	6,993.22
2016	2.73	17.58	14.72	0.03	0.90	1.18	1.86	0.04	1.18	1.19	0.00	3,091.93	0.00	0.24	0.00	3,096.90
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.78	49.80	30.15	0.07	187.33	2.21	189.54	1.44	2.21	3.65	0.00	6,976.60	0.00	0.52	0.00	6,987.46
2015	5.26	45.27	27.80	0.07	187.33	1.97	189.30	1.44	1.97	3.42	0.00	6,983.48	0.00	0.46	0.00	6,993.22
2016	2.73	17.58	14.72	0.03	0.90	1.18	1.86	0.04	1.18	1.19	0.00	3,091.93	0.00	0.24	0.00	3,096.90
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.20	0.00	0.20	0.00	0.00	0.00						0.00
Off-Road	5.68	46.24	25.07	0.04		2.12	2.12		2.12	2.12		4,822.39		0.51		4,833.07
Total	**5.68**	**46.24**	**25.07**	**0.04**	**0.20**	**2.12**	**2.32**	**0.00**	**2.12**	**2.12**		**4,822.39**		**0.51**		**4,833.07**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.05	0.49	0.29	0.00	0.44	0.02	0.47	0.00	0.02	0.02		79.76		0.00		79.81
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
Worker	0.05	0.06	0.54	0.00	0.12	0.00	0.13	0.00	0.00	0.01		93.69		0.01		93.80
Total	**0.10**	**0.55**	**0.83**	**0.00**	**0.56**	**0.02**	**0.60**	**0.00**	**0.02**	**0.03**		**173.45**		**0.01**		**173.61**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.08	0.00	0.08	0.00	0.00	0.00						0.00
Off-Road	5.68	46.24	25.07	0.04		2.12	2.12		2.12	2.12	0.00	4,822.39		0.51		4,833.07
Total	**5.68**	**46.24**	**25.07**	**0.04**	**0.08**	**2.12**	**2.20**	**0.00**	**2.12**	**2.12**	**0.00**	**4,822.39**		**0.51**		**4,833.07**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.05	0.49	0.29	0.00	0.44	0.02	0.47	0.00	0.02	0.02		79.76		0.00		79.81
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
Worker	0.05	0.06	0.54	0.00	0.12	0.00	0.13	0.00	0.00	0.01		93.69		0.01		93.80
Total	**0.10**	**0.55**	**0.83**	**0.00**	**0.56**	**0.02**	**0.60**	**0.00**	**0.02**	**0.03**		**173.45**		**0.01**		**173.61**

3.3 Excavation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.02	0.00	6.02	3.31	0.00	3.31						0.00
Off-Road	2.95	23.83	13.42	0.02		1.11	1.11		1.11	1.11		2,528.21		0.26		2,533.76
Total	**2.95**	**23.83**	**13.42**	**0.02**	**6.02**	**1.11**	**7.13**	**3.31**	**1.11**	**4.42**		**2,528.21**		**0.26**		**2,533.76**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.63	25.84	15.38	0.04	184.67	1.08	185.76	0.14	1.08	1.23		4,214.18		0.13		4,216.87
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
Worker	0.14	0.14	1.36	0.00	0.31	0.01	0.32	0.01	0.01	0.02		234.22		0.01		234.51
Total	**2.77**	**25.98**	**16.74**	**0.04**	**184.98**	**1.09**	**186.08**	**0.15**	**1.09**	**1.25**		**4,448.40**		**0.14**		**4,451.38**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.35	0.00	2.35	1.29	0.00	1.29						0.00
Off-Road	2.95	23.83	13.42	0.02		1.11	1.11		1.11	1.11	0.00	2,528.21		0.26		2,533.76
Total	**2.95**	**23.83**	**13.42**	**0.02**	**2.35**	**1.11**	**3.46**	**1.29**	**1.11**	**2.40**	**0.00**	**2,528.21**		**0.26**		**2,533.76**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.63	25.84	15.38	0.04	184.67	1.08	185.76	0.14	1.08	1.23		4,214.18		0.13		4,216.87
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
Worker	0.14	0.14	1.36	0.00	0.31	0.01	0.32	0.01	0.01	0.02		234.22		0.01		234.51
Total	**2.77**	**25.98**	**16.74**	**0.04**	**184.98**	**1.09**	**186.08**	**0.15**	**1.09**	**1.25**		**4,448.40**		**0.14**		**4,451.38**

3.3 Excavation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.02	0.00	6.02	3.31	0.00	3.31						0.00
Off-Road	2.80	22.21	12.72	0.02		1.02	1.02		1.02	1.02		2,528.21		0.25		2,533.45
Total	**2.80**	**22.21**	**12.72**	**0.02**	**6.02**	**1.02**	**7.04**	**3.31**	**1.02**	**4.33**		**2,528.21**		**0.25**		**2,533.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.34	22.92	13.83	0.04	184.67	0.94	185.62	0.14	0.94	1.08		4,225.79		0.11		4,228.17
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
Worker	0.13	0.13	1.25	0.00	0.31	0.01	0.32	0.01	0.01	0.02		229.49		0.01		229.77
Total	**2.47**	**23.05**	**15.08**	**0.04**	**184.98**	**0.95**	**185.94**	**0.15**	**0.95**	**1.10**		**4,455.28**		**0.12**		**4,457.94**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.35	0.00	2.35	1.29	0.00	1.29						0.00
Off-Road	2.80	22.21	12.72	0.02		1.02	1.02		1.02	1.02	0.00	2,528.21		0.25		2,533.45
Total	**2.80**	**22.21**	**12.72**	**0.02**	**2.35**	**1.02**	**3.37**	**1.29**	**1.02**	**2.31**	**0.00**	**2,528.21**		**0.25**		**2,533.45**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.34	22.92	13.83	0.04	184.67	0.94	185.62	0.14	0.94	1.08		4,225.79		0.11		4,228.17
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
Worker	0.13	0.13	1.25	0.00	0.31	0.01	0.32	0.01	0.01	0.02		229.49		0.01		229.77
Total	**2.47**	**23.05**	**15.08**	**0.04**	**184.98**	**0.95**	**185.94**	**0.15**	**0.95**	**1.10**		**4,455.28**		**0.12**		**4,457.94**

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.90	0.00	6.90	3.31	0.00	3.31						0.00
Off-Road	4.87	37.44	24.41	0.04		1.86	1.86		1.86	1.86		4,507.35		0.43		4,516.47
Total	**4.87**	**37.44**	**24.41**	**0.04**	**6.90**	**1.86**	**8.76**	**3.31**	**1.86**	**5.17**		**4,507.35**		**0.43**		**4,516.47**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
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
Worker	0.28	0.29	2.80	0.01	0.69	0.02	0.72	0.03	0.02	0.05		516.36		0.03		516.97
Total	**0.28**	**0.29**	**2.80**	**0.01**	**0.69**	**0.02**	**0.72**	**0.03**	**0.02**	**0.05**		**516.36**		**0.03**		**516.97**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.69	0.00	2.69	1.29	0.00	1.29						0.00
Off-Road	4.87	37.44	24.41	0.04		1.86	1.86		1.86	1.86	0.00	4,507.35		0.43		4,516.47
Total	**4.87**	**37.44**	**24.41**	**0.04**	**2.69**	**1.86**	**4.55**	**1.29**	**1.86**	**3.15**	**0.00**	**4,507.35**		**0.43**		**4,516.47**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
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
Worker	0.28	0.29	2.80	0.01	0.69	0.02	0.72	0.03	0.02	0.05		516.36		0.03		516.97
Total	**0.28**	**0.29**	**2.80**	**0.01**	**0.69**	**0.02**	**0.72**	**0.03**	**0.02**	**0.05**		**516.36**		**0.03**		**516.97**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.39	15.58	10.19	0.02		0.94	0.94		0.94	0.94		1,974.88		0.21		1,979.37
Total	**2.39**	**15.58**	**10.19**	**0.02**		**0.94**	**0.94**		**0.94**	**0.94**		**1,974.88**		**0.21**		**1,979.37**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.31	3.20	2.27	0.01	0.21	0.11	0.31	0.02	0.11	0.13		607.01		0.02		607.33
Worker	0.28	0.29	2.80	0.01	0.69	0.02	0.72	0.03	0.02	0.05		516.36		0.03		516.97
Total	**0.59**	**3.49**	**5.07**	**0.02**	**0.90**	**0.13**	**1.03**	**0.05**	**0.13**	**0.18**		**1,123.37**		**0.05**		**1,124.30**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.39	15.58	10.19	0.02		0.94	0.94		0.94	0.94	0.00	1,974.88		0.21		1,979.37
Total	**2.39**	**15.58**	**10.19**	**0.02**		**0.94**	**0.94**		**0.94**	**0.94**	**0.00**	**1,974.88**		**0.21**		**1,979.37**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.31	3.20	2.27	0.01	0.21	0.11	0.31	0.02	0.11	0.13		607.01		0.02		607.33
Worker	0.28	0.29	2.80	0.01	0.69	0.02	0.72	0.03	0.02	0.05		516.36		0.03		516.97
Total	**0.59**	**3.49**	**5.07**	**0.02**	**0.90**	**0.13**	**1.03**	**0.05**	**0.13**	**0.18**		**1,123.37**		**0.05**		**1,124.30**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.18	14.36	10.02	0.02		0.84	0.84		0.84	0.84		1,974.88		0.19		1,978.97
Total	**2.18**	**14.36**	**10.02**	**0.02**		**0.84**	**0.84**		**0.84**	**0.84**		**1,974.88**		**0.19**		**1,978.97**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.28	2.96	2.10	0.01	0.21	0.10	0.30	0.02	0.10	0.12		608.18		0.01		608.47
Worker	0.27	0.27	2.60	0.01	0.69	0.03	0.72	0.03	0.03	0.05		508.88		0.03		509.45
Total	**0.55**	**3.23**	**4.70**	**0.02**	**0.90**	**0.13**	**1.02**	**0.05**	**0.13**	**0.17**		**1,117.06**		**0.04**		**1,117.92**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.18	14.36	10.02	0.02		0.84	0.84		0.84	0.84	0.00	1,974.88		0.19		1,978.97
Total	**2.18**	**14.36**	**10.02**	**0.02**		**0.84**	**0.84**		**0.84**	**0.84**	**0.00**	**1,974.88**		**0.19**		**1,978.97**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.28	2.96	2.10	0.01	0.21	0.10	0.30	0.02	0.10	0.12		608.18		0.01		608.47
Worker	0.27	0.27	2.60	0.01	0.69	0.03	0.72	0.03	0.03	0.05		508.88		0.03		509.45
Total	**0.55**	**3.23**	**4.70**	**0.02**	**0.90**	**0.13**	**1.02**	**0.05**	**0.13**	**0.17**		**1,117.06**		**0.04**		**1,117.92**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.29	14.10	10.19	0.02		1.18	1.18		1.18	1.18		1,458.82		0.21		1,463.15
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**2.29**	**14.10**	**10.19**	**0.02**		**1.18**	**1.18**		**1.18**	**1.18**		**1,458.82**		**0.21**		**1,463.15**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
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
Worker	0.05	0.05	0.46	0.00	0.12	0.00	0.13	0.00	0.00	0.01		90.47		0.00		90.57
Total	**0.05**	**0.05**	**0.46**	**0.00**	**0.12**	**0.00**	**0.13**	**0.00**	**0.00**	**0.01**		**90.47**		**0.00**		**90.57**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.29	14.10	10.19	0.02		1.18	1.18		1.18	1.18	0.00	1,458.82		0.21		1,463.15
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**2.29**	**14.10**	**10.19**	**0.02**		**1.18**	**1.18**		**1.18**	**1.18**	**0.00**	**1,458.82**		**0.21**		**1,463.15**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
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
Worker	0.05	0.05	0.46	0.00	0.12	0.00	0.13	0.00	0.00	0.01		90.47		0.00		90.57
Total	**0.05**	**0.05**	**0.46**	**0.00**	**0.12**	**0.00**	**0.13**	**0.00**	**0.00**	**0.01**		**90.47**		**0.00**		**90.57**

Harvard-Westlake School Parking Structure Project - Fugitive Dust Emissions from Excavation

Excavation	Construction Activity

Fugitive Dust Stockpiling Parameters

Silt Content[c]	Precipitation Days[d]	Mean Wind Speed Percent[e]	TSP Fraction	Area[f] (acres)
6.9	10	0.90	0.5	0.21

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[g]	Mean Wind Speed (mph)[h]	Moisture Content[i]	Dirt Handled (cy/day)[a]	Dirt Handled (lbs./day)[j]
0.35	5.3	7.9	1,000	2,500,000

Dragline Parameters

Drop Height (feet)	Moisture Content[i]	PM_{10} Scaling Factor	$PM_{2.5}$ Scaling Factor
3	7.9%	0.75	0.017

Incremental Increase in Fugitive Dust Emissions from Construction Operations

Equations:

Grading[k]: PM10 Emissions (lb/day) = 0.60 x 0.051 x mean vehicle speed$^{2.0}$ x VMT x (1 - control efficiency)

Storage Piles[l]: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area) x (1 - control efficiency)

Material Handling[m]: PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5) $^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton) (1 - control efficiency)

Dragline Equation for PM_{10} Emissions[o] (lbs/day) = [((0.0021) x (drop height) $^{0.7}$) / (moisture content)$^{0.3}$] x 0.75 x Dirt Handled x Control Efficiency

Dragline Equation for $PM_{2.5}$ Emissions[o] (lbs/day) = [((0.0021) x (drop height) $^{1.1}$) / (moisture content)$^{0.3}$] x 0.017 x Dirt Handled x Control Efficiency

Description	Control Efficiency %	Unmitigated PM10[n] lb/day	Unmitigated PM2.5 lb/day
Storage Piles	61	0.030	0.006
Material Handling	61	0.090	0.019
Dragline	61	0.071	0.002
Total		**0.19**	**0.03**

Notes:

a) Assumed 50 20-cubic-yard haul trips per day.
b) Caterpillar Performance Handbook, Edition 33, October 2003 Operating Speeds, p 2-3.
c) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Corection Factors Applicable to the Predictive Emission Factor Equations
d) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993
e) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph.
f) Assumed storage piles are 0.06 acres in size
g) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggretate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm
h) Mean wind speed.
i) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, equation 2-13, p 2-28.
j) Assuming 1000 cubic yards of dirt handled [(1000 cyd x 2,500 lb/cyd)/ = 2,500,000 lb/day]
k) USEPA, AP-42, July 1998, Table 11.9-1, Equation for Site Grading ≤ 10 µm
l) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggretate Handling and Storage Piles, Equation 1
m) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12.
n) Includes watering at least three times a day per Rule 403 (61% control efficiency).
o) Source: USEPA, AP-42, Emission Factor Equations for Uncontrolled Dust Sources at Western Surface Coal Mines, Table 11.9-1, Dragline calculations for PM_{10} and $PM_{2.5}$.

Sub-Appendix d

Localized Construction Emissions - AERMOD Output Files

Harvard-Westlake School Parking Structure Project
Localized Construction $PM_{2.5}$ Emissions

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 7.5.0
** Lakes Environmental Software Inc.
** Date: 11/27/2012
** File: J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\Construction\AERMOD\Localized PM2\Localized PM2.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Harvard-Westlake Upper School Infrastructure Project
   TITLETWO Localized Construction Emissions PM2.2
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 9862049
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL "Localized PM2.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       369591.730  3778418.950      238.970
** DESCRSRC Construction Equipment
   LOCATION AREA2        AREA       369591.730  3778418.950      238.970
** DESCRSRC Off-Road
** Source Parameters **
   SRCPARAM AREA1        0.0000201196     5.000    65.883    61.432     0.000
   SRCPARAM AREA2        2.4708E-08     0.000    65.883    61.432     0.000     0.000
   URBANSRC AREA1
   URBANSRC AREA2

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "PM2.5"
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA1        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA2        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA2        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP PM2.5    AREA1 AREA2
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Localized PM2.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC"
   PROFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL"
   SURFDATA 0 2005
   UAIRDATA 3190 2005
   PROFBASE 0.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "LOCALIZED PM2.AD\24H1GALL.PLT"
   PLOTFILE 24 PM2.5 1ST "LOCALIZED PM2.AD\24H1G001.PLT"
   SUMMFILE "Localized PM2.sum"
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************

 *** AERMOD - VERSION  11353 ***   *** Harvard-Westlake Upper School Infrastructure Project               ***        11/27/12
                                  *** Localized Construction Emissions PM2.2                             ***        12:04:31
                                                                                                                    PAGE   1
 **MODELOPTs:  RegDFAULT CONC                                          ELEV


                                      ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
```

Harvard-Westlake School Parking Structure Project
Localized Construction $PM_{2.5}$ Emissions

```
**Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
**Model Uses NO WET DEPLETION.  WETDPLT  =  F

**Model Uses URBAN Dispersion Algorithm for the SBL for     2 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

**Model Uses Regulatory DEFAULT Options:
       1. Stack-tip Downwash.
       2. Model Accounts for ELEVated Terrain Effects.
       3. Use Calms Processing Routine.
       4. Use Missing Data Processing Routine.
       5. No Exponential Decay for URBAN/Non-SO2.
       6. Urban Roughness Length of 1.0 Meter Assumed.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates  1 Short Term Average(s) of:  24-HR

**This Run Includes:      2 Source(s);       2 Source Group(s); and      82 Receptor(s)

**The Model Assumes A Pollutant Type of:  PM_2.5

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
        Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
        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) =     0.00 ;  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 =      3.5 MB of RAM.

**Detailed Error/Message File:   Localized PM2.err
**File for Summary of Results:   Localized PM2.sum
*** AERMOD - VERSION  11353 ***   *** Harvard-Westlake Upper School Infrastructure Project                ***        11/27/12
                                 *** Localized Construction Emissions PM2.2                             ***        12:04:31
                                                                                                                   PAGE   2
**MODELOPTs:  RegDFAULT CONC                                          ELEV


                                            *** AREA SOURCE DATA ***

             NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
  SOURCE      PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
    ID        CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)              BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

AREA1           0   0.20120E-04  369591.7 3778418.9   239.0     5.00     65.88     61.43      0.00     0.00     YES   HROFDY
AREA2           0   0.24708E-07  369591.7 3778418.9   239.0     0.00     65.88     61.43      0.00     0.00     YES   HROFDY
*** AERMOD - VERSION  11353 ***   *** Harvard-Westlake Upper School Infrastructure Project                ***        11/27/12
                                 *** Localized Construction Emissions PM2.2                             ***        12:04:31
                                                                                                                   PAGE   3
**MODELOPTs:  RegDFAULT CONC                                          ELEV


                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID                                             SOURCE IDs


 PM2.5     AREA1       , AREA2       ,


 ALL       AREA1       , AREA2       ,
*** AERMOD - VERSION  11353 ***   *** Harvard-Westlake Upper School Infrastructure Project                ***        11/27/12
                                 *** Localized Construction Emissions PM2.2                             ***        12:04:31
                                                                                                                   PAGE   4
**MODELOPTs:  RegDFAULT CONC                                          ELEV


                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = AREA1        ; SOURCE TYPE = AREA     :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .00000E+00     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = AREA2        ; SOURCE TYPE = AREA     :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .00000E+00     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard-Westlake Upper School Infrastructure Project                ***        11/27/12
                                 *** Localized Construction Emissions PM2.2                             ***        12:04:31
                                                                                                                   PAGE   5
**MODELOPTs:  RegDFAULT CONC                                          ELEV


                                     *** DISCRETE CARTESIAN RECEPTORS ***
                                   (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 369670.5, 3778388.3,     238.9,     365.0,       0.0);         ( 369686.2, 3778353.0,     240.4,     365.0,       0.0);
    ( 369701.7, 3778534.9,     224.8,     365.0,       0.0);         ( 369685.0, 3778565.2,     221.3,     365.0,       0.0);
    ( 369709.4, 3778565.2,     220.8,     365.0,       0.0);         ( 369733.8, 3778565.2,     220.3,     365.0,       0.0);
    ( 369760.4, 3778565.2,     219.9,     365.0,       0.0);         ( 369685.0, 3778627.6,     216.1,     365.0,       0.0);
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    ( 369709.4, 3778627.6,     215.9,     365.0,       0.0);        ( 369733.8, 3778627.6,     215.7,     365.0,       0.0);
    ( 369760.4, 3778627.6,     215.5,     365.0,       0.0);        ( 369684.6, 3778740.8,     212.4,     365.0,       0.0);
    ( 369709.0, 3778740.8,     212.3,     365.0,       0.0);        ( 369733.4, 3778740.8,     212.3,     365.0,       0.0);
    ( 369760.0, 3778740.8,     212.3,     365.0,       0.0);        ( 369684.6, 3778685.5,     212.9,     365.0,       0.0);
    ( 369709.0, 3778685.5,     212.9,     365.0,       0.0);        ( 369733.5, 3778685.5,     212.9,     365.0,       0.0);
    ( 369760.1, 3778685.5,     212.9,     365.0,       0.0);        ( 369682.1, 3778778.2,     212.0,     365.0,       0.0);
    ( 369724.7, 3778778.2,     211.9,     365.0,       0.0);        ( 369767.3, 3778778.2,     211.9,     365.0,       0.0);
    ( 369809.9, 3778778.2,     211.9,     304.0,       0.0);        ( 369852.5, 3778778.2,     211.9,     304.0,       0.0);
    ( 369983.6, 3778767.6,     212.0,     304.0,       0.0);        ( 369914.4, 3778779.5,     212.0,     304.0,       0.0);
    ( 369883.8, 3778779.5,     211.9,     304.0,       0.0);        ( 369949.4, 3778777.0,     212.0,     304.0,       0.0);
    ( 369810.6, 3778741.3,     212.1,     365.0,       0.0);        ( 369828.2, 3778628.6,     214.6,     365.0,       0.0);
    ( 369867.0, 3778658.0,     212.8,     365.0,       0.0);        ( 369904.5, 3778679.1,     212.0,     365.0,       0.0);
    ( 369858.7, 3778708.4,     212.0,     365.0,       0.0);        ( 369905.7, 3778639.1,     214.2,     365.0,       0.0);
    ( 369885.8, 3778619.1,     215.4,     365.0,       0.0);        ( 369638.6, 3778030.1,     269.3,     365.0,       0.0);
    ( 369698.0, 3778231.8,     243.0,     365.0,       0.0);        ( 369682.8, 3778161.3,     247.8,     365.0,       0.0);
    ( 369653.8, 3778099.1,     252.5,     365.0,       0.0);        ( 369666.2, 3778059.1,     259.1,     365.0,       0.0);
    ( 369722.9, 3778230.4,     242.9,     365.0,       0.0);        ( 369716.0, 3778190.3,     244.4,     365.0,       0.0);
    ( 369703.6, 3778158.6,     247.2,     365.0,       0.0);        ( 369687.0, 3778126.8,     251.1,     365.0,       0.0);
    ( 369675.9, 3778097.8,     253.5,     365.0,       0.0);        ( 369703.6, 3778108.8,     251.0,     365.0,       0.0);
    ( 369727.0, 3778139.2,     247.0,     365.0,       0.0);        ( 369903.9, 3778552.4,     223.0,     365.0,       0.0);
    ( 369866.6, 3778563.4,     219.9,     365.0,       0.0);        ( 369873.5, 3778516.4,     227.5,     365.0,       0.0);
    ( 369887.3, 3778491.6,     232.5,     304.0,       0.0);        ( 369859.7, 3778444.6,     236.3,     304.0,       0.0);
    ( 369854.2, 3778327.2,     244.4,     304.0,       0.0);        ( 369643.4, 3778672.5,     213.2,     365.0,       0.0);
    ( 369644.1, 3778798.3,     212.1,     365.0,       0.0);        ( 369649.7, 3779013.9,     208.7,     304.0,       0.0);
    ( 369649.7, 3778913.0,     210.4,     304.0,       0.0);        ( 369580.6, 3779019.4,     208.6,     304.0,       0.0);
    ( 369573.7, 3778911.6,     210.7,     304.0,       0.0);        ( 369575.1, 3778832.9,     212.0,     365.0,       0.0);
    ( 369591.6, 3778750.0,     213.4,     365.0,       0.0);        ( 369640.0, 3778638.0,     216.2,     365.0,       0.0);
    ( 369590.3, 3778698.8,     214.8,     365.0,       0.0);        ( 369569.5, 3778751.3,     213.8,     365.0,       0.0);
    ( 369553.0, 3778835.6,     212.2,     365.0,       0.0);        ( 369547.4, 3778906.1,     211.0,     365.0,       0.0);
    ( 369612.5, 3778561.8,     224.2,     365.0,       0.0);        ( 369551.3, 3778615.4,     225.2,     365.0,       0.0);
    ( 369492.0, 3778688.1,     228.6,     365.0,       0.0);        ( 369486.2, 3778783.7,     220.2,     365.0,       0.0);
    ( 369532.1, 3778514.0,     236.4,     365.0,       0.0);        ( 369467.1, 3778588.6,     240.7,     365.0,       0.0);
    ( 369442.2, 3778525.5,     243.2,     365.0,       0.0);        ( 369426.9, 3778653.6,     236.6,     365.0,       0.0);
    ( 369430.8, 3778596.3,     241.5,     365.0,       0.0);        ( 369383.0, 3778730.1,     228.1,     365.0,       0.0);
    ( 369384.9, 3778676.6,     233.1,     365.0,       0.0);        ( 369398.3, 3778498.7,     243.2,     365.0,       0.0);
    ( 369245.3, 3778531.2,     233.6,     365.0,       0.0);        ( 369245.3, 3778441.3,     240.3,     365.0,       0.0);
    ( 369247.2, 3778341.9,     242.3,     365.0,       0.0);        ( 369797.9, 3778158.5,     243.6,     365.0,       0.0);
*** AERMOD - VERSION  11353 ***   *** Harvard-Westlake Upper School Infrastructure Project               ***        11/27/12
                                  *** Localized Construction Emissions PM2.2                             ***        12:04:31
                                                                                                                    PAGE   6
**MODELOPTs:  RegDFAULT CONC                                                ELEV


                                           *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                              (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

              NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                        (METERS/SEC)

                                               1.54,   3.09,   5.14,   8.23,  10.80,
*** AERMOD - VERSION  11353 ***   *** Harvard-Westlake Upper School Infrastructure Project               ***        11/27/12
                                  *** Localized Construction Emissions PM2.2                             ***        12:04:31
                                                                                                                    PAGE   7
**MODELOPTs:  RegDFAULT CONC                                                ELEV


                                      *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

  Surface file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC   Met Version:  11059
  Profile file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL
  Surface format: FREE
  Profile format: FREE
  Surface station no.:        0                Upper air station no.:     3190
                 Name: UNKNOWN                                  Name: UNKNOWN
                 Year:   2005                                   Year:   2005
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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
05	01	01	1	01	-1.5	0.047	-9.000	-9.000	-999.	24.	6.3	0.63	1.00	1.00	0.70	285.	12.2	279.9	8.5
05	01	01	1	02	-1.7	0.054	-9.000	-9.000	-999.	29.	8.3	0.63	1.00	1.00	0.80	278.	12.2	279.9	8.5
05	01	01	1	03	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	335.	12.2	279.2	8.5
05	01	01	1	04	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	291.	12.2	278.8	8.5
05	01	01	1	05	-2.1	0.061	-9.000	-9.000	-999.	34.	9.4	0.63	1.00	1.00	0.90	334.	12.2	278.1	8.5
05	01	01	1	06	-0.9	0.040	-9.000	-9.000	-999.	19.	6.2	0.63	1.00	1.00	0.60	309.	12.2	278.8	8.5
05	01	01	1	07	-1.3	0.047	-9.000	-9.000	-999.	24.	7.3	0.63	1.00	1.00	0.70	312.	12.2	278.8	8.5
05	01	01	1	08	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	0.56	0.60	256.	12.2	279.2	8.5
05	01	01	1	09	20.5	0.177	0.303	0.005	48.	171.	-23.9	0.63	1.00	0.33	1.00	298.	12.2	282.5	8.5
05	01	01	1	10	52.6	0.184	1.005	0.005	684.	181.	-10.4	0.63	1.00	0.25	0.90	103.	12.2	286.4	8.5
05	01	01	1	11	109.2	0.376	1.415	0.006	920.	529.	-42.9	0.63	1.00	0.22	2.30	136.	12.2	287.0	8.5
05	01	01	1	12	27.8	0.303	0.917	0.007	980.	386.	-88.5	0.63	1.00	0.21	2.00	152.	12.2	287.0	8.5
05	01	01	1	13	27.2	0.255	0.927	0.007	1037.	297.	-53.9	0.63	1.00	0.21	1.60	187.	12.2	285.9	8.5
05	01	01	1	14	22.9	0.227	0.899	0.008	1123.	249.	-45.2	0.63	1.00	0.22	1.40	156.	12.2	287.0	8.5
05	01	01	1	15	13.9	0.218	0.774	0.009	1179.	234.	-66.0	0.63	1.00	0.26	1.40	192.	12.2	286.4	8.5
05	01	01	1	16	1.5	0.234	0.373	0.009	1183.	260.	-729.3	0.63	1.00	0.34	1.70	188.	12.2	285.9	8.5
05	01	01	1	17	-3.6	0.088	-9.000	-9.000	-999.	77.	16.6	0.63	1.00	0.61	1.30	200.	12.2	285.4	8.5
05	01	01	1	18	-1.8	0.061	-9.000	-9.000	-999.	34.	11.0	0.63	1.00	1.00	0.90	162.	12.2	284.9	8.5
05	01	01	1	19	-1.1	0.047	-9.000	-9.000	-999.	24.	8.6	0.63	1.00	1.00	0.70	176.	12.2	284.9	8.5
05	01	01	1	20	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	210.	12.2	284.2	8.5
05	01	01	1	21	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	236.	12.2	284.2	8.5
05	01	01	1	22	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	272.	12.2	283.8	8.5
05	01	01	1	23	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	251.	12.2	283.1	8.5
05	01	01	1	24	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	301.	12.2	282.5	8.5

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
05	01	01	01	8.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
05	01	01	01	12.2	1	285.	0.70	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

Harvard-Westlake School Parking Structure Project
Localized Construction $PM_{2.5}$ Emissions

**MODELOPTs: RegDFAULT CONC ELEV

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM2.5 ***
INCLUDING SOURCE(S): AREA1 , AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	8.63564	(07121324)	369686.20	3778352.98	4.14969	(07120324)
369701.74	3778534.95	3.14038	(07122924)	369684.96	3778565.24	4.09178	(07111824)
369709.39	3778565.24	2.74535	(07111124)	369733.82	3778565.24	1.96497	(07122924)
369760.43	3778565.24	1.54906	(07122924)	369684.96	3778627.64	2.50565	(07111824)
369709.39	3778627.64	2.59175	(07111824)	369733.82	3778627.64	1.95264	(07111124)
369760.43	3778627.64	1.32772	(07111124)	369684.56	3778740.79	0.87225	(07012824)
369708.99	3778740.79	1.08738	(07111824)	369733.42	3778740.79	1.44033	(07111824)
369760.02	3778740.79	1.45052	(07111824)	369684.59	3778685.54	1.26319	(07111824)
369709.02	3778685.54	1.81739	(07111824)	369733.45	3778685.54	1.87745	(07111824)
369760.06	3778685.54	1.43623	(07111124)	369682.12	3778778.17	0.75538	(07012824)
369724.72	3778778.17	0.97838	(07111824)	369767.32	3778778.17	1.29564	(07111824)
369809.92	3778778.17	0.96225	(07111124)	369852.52	3778778.17	0.68953	(07111124)
369983.65	3778767.63	0.40690	(07122924)	369914.44	3778779.51	0.47203	(07010324)
369883.78	3778779.51	0.51303	(07010324)	369949.38	3778777.05	0.45651	(07122924)
369810.59	3778741.35	0.97605	(07111124)	369828.20	3778628.60	0.87391	(07122924)
369866.96	3778657.96	0.68089	(07122924)	369904.54	3778679.10	0.57605	(06013024)
369858.74	3778708.37	0.64765	(07122924)	369905.71	3778639.08	0.68790	(07020424)
369885.75	3778619.11	0.79815	(07020424)	369638.62	3778030.06	0.53613	(06010524)
369698.03	3778231.80	1.39698	(05010424)	369682.83	3778161.33	1.16789	(06020524)
369653.81	3778099.15	0.80053	(06010524)	369666.25	3778059.08	0.64605	(06020524)
369722.90	3778230.42	1.38057	(05010424)	369715.99	3778190.35	1.17138	(05010424)
369703.56	3778158.57	1.06067	(06020524)	369686.98	3778126.79	1.00829	(06020524)
369675.92	3778097.77	0.86622	(06020524)	369703.56	3778108.82	0.91857	(06020524)
369727.05	3778139.22	0.90582	(05010424)	369903.91	3778552.37	1.07485m	(05012424)
369866.61	3778563.43	1.14527m	(05012424)	369873.52	3778516.45	1.35702	(07013124)
369887.33	3778491.57	1.46797	(07013124)	369859.70	3778444.59	1.59790	(05010524)
369854.17	3778327.22	1.37551	(06021224)	369643.37	3778672.46	1.31265	(07012824)
369644.15	3778798.32	0.64922	(07012824)	369649.67	3779013.88	0.30019	(06112424)
369649.67	3778913.01	0.41709	(07012824)	369580.58	3779019.41	0.32347	(06112424)
369573.68	3778911.63	0.40376	(06112424)	369575.06	3778832.87	0.49776	(06112424)
369591.64	3778749.96	0.71806	(06112424)	369640.00	3778638.03	1.69682	(07012824)
369590.26	3778698.83	0.88503	(06112424)	369569.53	3778751.34	0.66182	(06012724)
369552.95	3778835.63	0.48476	(06012724)	369547.42	3778906.10	0.39410	(06012724)
369612.46	3778561.84	3.39449	(05121824)	369551.26	3778615.39	1.65156m	(07121924)
369491.97	3778688.07	0.90110	(07011524)	369486.23	3778783.69	0.53416	(07011524)
369532.13	3778514.03	7.25256	(07111924)	369467.11	3778588.61	3.08783	(07111924)
369442.24	3778525.50	2.78197	(07111724)	369426.94	3778653.64	1.35580	(07111924)
369430.77	3778596.26	2.84271	(07111924)	369382.96	3778730.14	0.73736	(06120924)
369384.87	3778676.59	1.32619	(07111924)	369398.26	3778498.73	2.61473	(07111724)
369245.26	3778531.24	1.27601	(07111724)	369245.26	3778441.35	0.60860	(06020224)

**MODELOPTs: RegDFAULT CONC ELEV

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM2.5 ***
INCLUDING SOURCE(S): AREA1 , AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369247.17	3778341.90	0.56978	(07021024)	369797.86	3778158.54	0.85580	(05011224)

**MODELOPTs: RegDFAULT CONC ELEV

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): AREA1 , AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	8.63564	(07121324)	369686.20	3778352.98	4.14969	(07120324)
369701.74	3778534.95	3.14038	(07122924)	369684.96	3778565.24	4.09178	(07111824)
369709.39	3778565.24	2.74535	(07111124)	369733.82	3778565.24	1.96497	(07122924)
369760.43	3778565.24	1.54906	(07122924)	369684.96	3778627.64	2.50565	(07111824)
369709.39	3778627.64	2.59175	(07111824)	369733.82	3778627.64	1.95264	(07111124)
369760.43	3778627.64	1.32772	(07111124)	369684.56	3778740.79	0.87225	(07012824)
369708.99	3778740.79	1.08738	(07111824)	369733.42	3778740.79	1.44033	(07111824)
369760.02	3778740.79	1.45052	(07111824)	369684.59	3778685.54	1.26319	(07111824)
369709.02	3778685.54	1.81739	(07111824)	369733.45	3778685.54	1.87745	(07111824)
369760.06	3778685.54	1.43623	(07111124)	369682.12	3778778.17	0.75538	(07012824)
369724.72	3778778.17	0.97838	(07111824)	369767.32	3778778.17	1.29564	(07111824)
369809.92	3778778.17	0.96225	(07111124)	369852.52	3778778.17	0.68953	(07111124)
369983.65	3778767.63	0.40690	(07122924)	369914.44	3778779.51	0.47203	(07010324)
369883.78	3778779.51	0.51303	(07010324)	369949.38	3778777.05	0.45651	(07122924)
369810.59	3778741.35	0.97605	(07111124)	369828.20	3778628.60	0.87391	(07122924)
369866.96	3778657.96	0.68089	(07122924)	369904.54	3778679.10	0.57605	(06013024)
369858.74	3778708.37	0.64765	(07122924)	369905.71	3778639.08	0.68790	(07020424)
369885.75	3778619.11	0.79815	(07020424)	369638.62	3778030.06	0.53613	(06010524)
369698.03	3778231.80	1.39698	(05010424)	369682.83	3778161.33	1.16789	(06020524)
369653.81	3778099.15	0.80053	(06010524)	369666.25	3778059.08	0.64605	(06020524)
369722.90	3778230.42	1.38057	(05010424)	369715.99	3778190.35	1.17138	(05010424)
369703.56	3778158.57	1.06067	(06020524)	369686.98	3778126.79	1.00829	(06020524)
369675.92	3778097.77	0.86622	(06020524)	369703.56	3778108.82	0.91857	(06020524)
369727.05	3778139.22	0.90582	(05010424)	369903.91	3778552.37	1.07485m	(05012424)
369866.61	3778563.43	1.14527m	(05012424)	369873.52	3778516.45	1.35702	(07013124)
369887.33	3778491.57	1.46797	(07013124)	369859.70	3778444.59	1.59790	(05010524)
369854.17	3778327.22	1.37551	(06021224)	369643.37	3778672.46	1.31265	(07012824)
369644.15	3778798.32	0.64922	(07012824)	369649.67	3779013.88	0.30019	(06112424)

Harvard-Westlake School Parking Structure Project
Localized Construction $PM_{2.5}$ Emissions

```
       369649.67   3778913.01        0.41709  (07012824)               369580.58   3779019.41        0.32347  (06112424)
       369573.68   3778911.63        0.40376  (06112424)               369575.06   3778832.87        0.49776  (06112424)
       369591.64   3778749.96        0.71806  (06112424)               369640.00   3778638.03        1.69682  (07012824)
       369590.26   3778698.83        0.88503  (06112424)               369569.53   3778751.34        0.66182  (06012724)
       369552.95   3778835.63        0.48476  (06012724)               369547.42   3778906.10        0.39410  (06012724)
       369612.46   3778561.84        3.39449  (05121824)               369551.26   3778615.39        1.65156m (07121924)
       369491.97   3778688.07        0.90110  (07011524)               369486.23   3778783.69        0.53416  (07011524)
       369532.13   3778514.03        7.25256  (07111924)               369467.11   3778588.61        3.08783  (07111924)
       369442.24   3778525.50        2.78197  (07111724)               369426.94   3778653.64        1.35580  (07111924)
       369430.77   3778596.26        2.84271  (07111924)               369382.96   3778730.14        0.73736  (06120924)
       369384.87   3778676.59        1.32619  (07111924)               369398.26   3778498.73        2.61473  (07111724)
       369245.26   3778531.24        1.27601  (07111724)               369245.26   3778441.35        0.60860  (06020224)
 *** AERMOD - VERSION  11353 ***   *** Harvard-Westlake Upper School Infrastructure Project               ***        11/27/12
                                   *** Localized Construction Emissions PM2.2                             ***        12:04:31
                                                                                                                     PAGE  11
 **MODELOPTs:  RegDFAULT CONC                                          ELEV


                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     AREA1       , AREA2       ,

                                           *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                      ** CONC OF PM_2.5   IN MICROGRAMS/M**3                        **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       369247.17   3778341.90        0.56978  (07021024)               369797.86   3778158.54        0.85580  (05011224)
 *** AERMOD - VERSION  11353 ***   *** Harvard-Westlake Upper School Infrastructure Project               ***        11/27/12
                                   *** Localized Construction Emissions PM2.2                             ***        12:04:31
                                                                                                                     PAGE  12
 **MODELOPTs:  RegDFAULT CONC                                          ELEV


                                                *** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

                                     ** CONC OF PM_2.5   IN MICROGRAMS/M**3                        **

                                                          DATE                                                        NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PM2.5    HIGH   1ST HIGH VALUE IS       8.63564  ON 07121324: AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC

ALL      HIGH   1ST HIGH VALUE IS       8.63564  ON 07121324: AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION  11353 ***   *** Harvard-Westlake Upper School Infrastructure Project               ***        11/27/12
                                   *** Localized Construction Emissions PM2.2                             ***        12:04:31
                                                                                                                     PAGE  13
 **MODELOPTs:  RegDFAULT CONC                                          ELEV


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of          154 Informational Message(s)

 A Total of        26280 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          154 Missing Hours Identified (  0.59 Percent)


    ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

Harvard-Westlake School Parking Structure Project
Localized Construction PM_{10} Emissions

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 7.5.0
** Lakes Environmental Software Inc.
** Date: 11/27/2012
** File: J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\Construction\AERMOD\Localized PM10\Localized PM10.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 9862049
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "Localized PM10.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       369591.730  3778418.950      238.970
** DESCRSRC Construction Equipment
   LOCATION AREA2        AREA       369591.730  3778418.950      238.970
** DESCRSRC Off-Road
** Source Parameters **
   SRCPARAM AREA1        0.0000340894     5.000    65.883    61.432     0.000
   SRCPARAM AREA2        4.5709E-06     0.000    65.883    61.432     0.000     0.000
   URBANSRC AREA1
   URBANSRC AREA2

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "PM10"
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA1        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA2        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA2        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP PM10     AREA1 AREA2
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "Localized PM10.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC"
   PROFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL"
   SURFDATA 0 2005
   UAIRDATA 3190 2005
   PROFBASE 0.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "Localized PM10.AD\24H1GALL.PLT"
   PLOTFILE 24 PM10 1ST "Localized PM10.AD\24H1G001.PLT"
   SUMMFILE "Localized PM10.sum"
OU FINISHED

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

 *** AERMOD - VERSION  11353 ***   *** J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\ ***        11/27/12
                                  ***                                                                      ***        11:31:58
                                                                                                                      PAGE   1
 **MODELOPTs:  RegDFAULT CONC                                          ELEV


                                      ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
```

Harvard-Westlake School Parking Structure Project
Localized Construction PM_{10} Emissions

```
**Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
**Model Uses NO WET DEPLETION.  WETDPLT  =  F

**Model Uses URBAN Dispersion Algorithm for the SBL for     2 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

**Model Uses Regulatory DEFAULT Options:
       1. Stack-tip Downwash.
       2. Model Accounts for ELEVated Terrain Effects.
       3. Use Calms Processing Routine.
       4. Use Missing Data Processing Routine.
       5. No Exponential Decay for URBAN/Non-SO2.
       6. Urban Roughness Length of 1.0 Meter Assumed.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates  1 Short Term Average(s) of:  24-HR

**This Run Includes:      2 Source(s);       2 Source Group(s); and      82 Receptor(s)

**The Model Assumes A Pollutant Type of:  PM_10

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
        Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
        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) =     0.00 ;  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 =      3.5 MB of RAM.

**Detailed Error/Message File:   Localized PM10.err
**File for Summary of Results:   Localized PM10.sum
*** AERMOD - VERSION  11353 ***   *** J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\ ***        11/27/12
                                  ***                                                                   ***        11:31:58
                                                                                                                   PAGE   2
**MODELOPTs:  RegDFAULT CONC                                          ELEV


                                          *** AREA SOURCE DATA ***

             NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
  SOURCE      PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
    ID        CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)              BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

AREA1           0   0.34089E-04  369591.7 3778418.9   239.0     5.00     65.88     61.43      0.00     0.00     YES   HROFDY
AREA2           0   0.45709E-05  369591.7 3778418.9   239.0     0.00     65.88     61.43      0.00     0.00     YES   HROFDY
*** AERMOD - VERSION  11353 ***   *** J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\ ***        11/27/12
                                  ***                                                                   ***        11:31:58
                                                                                                                   PAGE   3
**MODELOPTs:  RegDFAULT CONC                                          ELEV


                                     *** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID                                        SOURCE IDs


 PM10      AREA1       , AREA2       ,


 ALL       AREA1       , AREA2       ,
*** AERMOD - VERSION  11353 ***   *** J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\ ***        11/27/12
                                  ***                                                                   ***        11:31:58
                                                                                                                   PAGE   4
**MODELOPTs:  RegDFAULT CONC                                          ELEV


                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = AREA1        ; SOURCE TYPE = AREA     :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .00000E+00     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = AREA2        ; SOURCE TYPE = AREA     :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .00000E+00     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\ ***        11/27/12
                                  ***                                                                   ***        11:31:58
                                                                                                                   PAGE   5
**MODELOPTs:  RegDFAULT CONC                                          ELEV


                                       *** DISCRETE CARTESIAN RECEPTORS ***
                                     (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                 (METERS)

    ( 369670.5, 3778388.3,     238.9,     365.0,       0.0);         ( 369686.2, 3778353.0,     240.4,     365.0,       0.0);
    ( 369701.7, 3778534.9,     224.8,     365.0,       0.0);         ( 369685.0, 3778565.2,     221.3,     365.0,       0.0);
    ( 369709.4, 3778565.2,     220.8,     365.0,       0.0);         ( 369733.8, 3778565.2,     220.3,     365.0,       0.0);
```

```
     ( 369760.4, 3778565.2,     219.9,     365.0,       0.0);        ( 369685.0, 3778627.6,     216.1,     365.0,       0.0);
     ( 369709.4, 3778627.6,     215.9,     365.0,       0.0);        ( 369733.8, 3778627.6,     215.7,     365.0,       0.0);
     ( 369760.4, 3778627.6,     215.5,     365.0,       0.0);        ( 369684.6, 3778740.8,     212.4,     365.0,       0.0);
     ( 369709.0, 3778740.8,     212.3,     365.0,       0.0);        ( 369733.4, 3778740.8,     212.3,     365.0,       0.0);
     ( 369760.0, 3778740.8,     212.3,     365.0,       0.0);        ( 369684.6, 3778685.5,     212.9,     365.0,       0.0);
     ( 369709.0, 3778685.5,     212.9,     365.0,       0.0);        ( 369733.5, 3778685.5,     212.9,     365.0,       0.0);
     ( 369760.1, 3778685.5,     212.9,     365.0,       0.0);        ( 369682.1, 3778778.2,     212.0,     365.0,       0.0);
     ( 369724.7, 3778778.2,     211.9,     365.0,       0.0);        ( 369767.3, 3778778.2,     211.9,     365.0,       0.0);
     ( 369809.9, 3778778.2,     211.9,     304.0,       0.0);        ( 369852.5, 3778778.2,     211.9,     304.0,       0.0);
     ( 369983.6, 3778767.6,     212.0,     304.0,       0.0);        ( 369914.4, 3778779.5,     212.0,     304.0,       0.0);
     ( 369883.8, 3778779.5,     211.9,     304.0,       0.0);        ( 369949.4, 3778777.0,     212.0,     304.0,       0.0);
     ( 369810.6, 3778741.3,     212.1,     365.0,       0.0);        ( 369828.2, 3778628.6,     214.6,     365.0,       0.0);
     ( 369867.0, 3778658.0,     212.8,     365.0,       0.0);        ( 369904.5, 3778679.1,     212.0,     365.0,       0.0);
     ( 369858.7, 3778708.4,     212.0,     365.0,       0.0);        ( 369905.7, 3778639.1,     214.2,     365.0,       0.0);
     ( 369885.8, 3778619.1,     215.4,     365.0,       0.0);        ( 369638.6, 3778030.1,     269.3,     365.0,       0.0);
     ( 369698.0, 3778231.8,     243.0,     365.0,       0.0);        ( 369682.8, 3778161.3,     247.8,     365.0,       0.0);
     ( 369653.8, 3778099.1,     252.5,     365.0,       0.0);        ( 369666.2, 3778059.1,     259.1,     365.0,       0.0);
     ( 369722.9, 3778230.4,     242.9,     365.0,       0.0);        ( 369716.0, 3778190.3,     244.4,     365.0,       0.0);
     ( 369703.6, 3778158.6,     247.2,     365.0,       0.0);        ( 369687.0, 3778126.8,     251.1,     365.0,       0.0);
     ( 369675.9, 3778097.8,     253.5,     365.0,       0.0);        ( 369703.6, 3778108.8,     251.0,     365.0,       0.0);
     ( 369727.0, 3778139.2,     247.0,     365.0,       0.0);        ( 369903.9, 3778552.4,     223.0,     365.0,       0.0);
     ( 369866.6, 3778563.4,     219.9,     365.0,       0.0);        ( 369873.5, 3778516.4,     227.5,     365.0,       0.0);
     ( 369887.3, 3778491.6,     232.5,     304.0,       0.0);        ( 369859.7, 3778444.6,     236.3,     304.0,       0.0);
     ( 369854.2, 3778327.2,     244.4,     304.0,       0.0);        ( 369643.4, 3778672.5,     213.2,     365.0,       0.0);
     ( 369644.1, 3778798.3,     212.1,     365.0,       0.0);        ( 369649.7, 3779013.9,     208.7,     304.0,       0.0);
     ( 369649.7, 3778913.0,     210.4,     304.0,       0.0);        ( 369580.6, 3779019.4,     208.6,     304.0,       0.0);
     ( 369573.7, 3778911.6,     210.7,     304.0,       0.0);        ( 369575.1, 3778832.9,     212.0,     365.0,       0.0);
     ( 369591.6, 3778750.0,     213.4,     365.0,       0.0);        ( 369640.0, 3778638.0,     216.2,     365.0,       0.0);
     ( 369590.3, 3778698.8,     214.8,     365.0,       0.0);        ( 369569.5, 3778751.3,     213.8,     365.0,       0.0);
     ( 369553.0, 3778835.6,     212.2,     365.0,       0.0);        ( 369547.4, 3778906.1,     211.0,     365.0,       0.0);
     ( 369612.5, 3778561.8,     224.2,     365.0,       0.0);        ( 369551.3, 3778615.4,     225.2,     365.0,       0.0);
     ( 369492.0, 3778688.1,     228.6,     365.0,       0.0);        ( 369486.2, 3778783.7,     220.2,     365.0,       0.0);
     ( 369532.1, 3778514.0,     236.4,     365.0,       0.0);        ( 369467.1, 3778588.6,     240.7,     365.0,       0.0);
     ( 369442.2, 3778525.5,     243.2,     365.0,       0.0);        ( 369426.9, 3778653.6,     236.6,     365.0,       0.0);
     ( 369430.8, 3778596.3,     241.5,     365.0,       0.0);        ( 369383.0, 3778730.1,     228.1,     365.0,       0.0);
     ( 369384.9, 3778676.6,     233.1,     365.0,       0.0);        ( 369398.3, 3778498.7,     243.2,     365.0,       0.0);
     ( 369245.3, 3778531.2,     233.6,     365.0,       0.0);        ( 369245.3, 3778441.3,     240.3,     365.0,       0.0);
     ( 369247.2, 3778341.9,     242.3,     365.0,       0.0);        ( 369797.9, 3778158.5,     243.6,     365.0,       0.0);
 *** AERMOD - VERSION  11353 ***   *** J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\ ***        11/27/12
                                   ***                                                                        ***        11:31:58
                                                                                                                          PAGE   6
 **MODELOPTs:  RegDFAULT CONC                                                  ELEV


                                        *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                           (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

              NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                         (METERS/SEC)

                                             1.54,   3.09,   5.14,   8.23,  10.80,
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 **MODELOPTs:  RegDFAULT CONC                                                  ELEV


                                  *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC   Met Version:  11059
   Profile file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:        0                 Upper air station no.:     3190
                  Name: UNKNOWN                                    Name: UNKNOWN
                  Year:   2005                                     Year:   2005

 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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 05 01 01    1 01   -1.5  0.047 -9.000 -9.000 -999.   24.      6.3  0.63   1.00   1.00    0.70  285.   12.2  279.9    8.5
 05 01 01    1 02   -1.7  0.054 -9.000 -9.000 -999.   29.      8.3  0.63   1.00   1.00    0.80  278.   12.2  279.9    8.5
 05 01 01    1 03   -2.0  0.054 -9.000 -9.000 -999.   29.      6.9  0.63   1.00   1.00    0.80  335.   12.2  279.2    8.5
 05 01 01    1 04   -2.0  0.054 -9.000 -9.000 -999.   29.      6.9  0.63   1.00   1.00    0.80  291.   12.2  278.8    8.5
 05 01 01    1 05   -2.1  0.061 -9.000 -9.000 -999.   34.      9.4  0.63   1.00   1.00    0.90  334.   12.2  278.1    8.5
 05 01 01    1 06   -0.9  0.040 -9.000 -9.000 -999.   19.      6.2  0.63   1.00   1.00    0.60  309.   12.2  278.8    8.5
 05 01 01    1 07   -1.3  0.047 -9.000 -9.000 -999.   24.      7.3  0.63   1.00   1.00    0.70  312.   12.2  278.8    8.5
 05 01 01    1 08   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   0.56    0.60  256.   12.2  279.2    8.5
 05 01 01    1 09   20.5  0.177  0.303  0.005   48.  171.    -23.9  0.63   1.00   0.33    1.00  298.   12.2  282.5    8.5
 05 01 01    1 10   52.6  0.184  1.005  0.005  684.  181.    -10.4  0.63   1.00   0.25    0.90  103.   12.2  286.4    8.5
 05 01 01    1 11  109.2  0.376  1.415  0.006  920.  529.    -42.9  0.63   1.00   0.22    2.30  136.   12.2  287.0    8.5
 05 01 01    1 12   27.8  0.303  0.917  0.007  980.  386.    -88.5  0.63   1.00   0.21    2.00  152.   12.2  287.0    8.5
 05 01 01    1 13   27.2  0.255  0.927  0.007 1037.  297.    -53.9  0.63   1.00   0.21    1.60  187.   12.2  285.9    8.5
 05 01 01    1 14   22.9  0.227  0.899  0.008 1123.  249.    -45.2  0.63   1.00   0.22    1.40  156.   12.2  287.0    8.5
 05 01 01    1 15   13.9  0.218  0.774  0.009 1179.  234.    -66.0  0.63   1.00   0.26    1.40  192.   12.2  286.4    8.5
 05 01 01    1 16    1.5  0.234  0.373  0.009 1183.  260.   -729.3  0.63   1.00   0.34    1.70  188.   12.2  285.9    8.5
 05 01 01    1 17   -3.6  0.088 -9.000 -9.000 -999.   77.     16.6  0.63   1.00   0.61    1.30  200.   12.2  285.4    8.5
 05 01 01    1 18   -1.8  0.061 -9.000 -9.000 -999.   34.     11.0  0.63   1.00   1.00    0.90  162.   12.2  284.9    8.5
 05 01 01    1 19   -1.1  0.047 -9.000 -9.000 -999.   24.      8.6  0.63   1.00   1.00    0.70  176.   12.2  284.9    8.5
 05 01 01    1 20   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  210.   12.2  284.2    8.5
 05 01 01    1 21   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  236.   12.2  284.2    8.5
 05 01 01    1 22   -0.9  0.040 -9.000 -9.000 -999.   19.      6.3  0.63   1.00   1.00    0.60  272.   12.2  283.8    8.5
 05 01 01    1 23   -0.9  0.040 -9.000 -9.000 -999.   19.      6.3  0.63   1.00   1.00    0.60  251.   12.2  283.1    8.5
 05 01 01    1 24   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  301.   12.2  282.5    8.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 05 01 01 01    8.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 05 01 01 01   12.2 1  285.    0.70  -999.0   99.0  -99.00  -99.00
```

Harvard-Westlake School Parking Structure Project
Localized Construction PM_{10} Emissions

F indicates top of profile (=1) or below (=0)
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**MODELOPTs: RegDFAULT CONC ELEV

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM10 ***
INCLUDING SOURCE(S): AREA1 , AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	17.17594	(07121324)	369686.20	3778352.98	8.37133	(07120324)
369701.74	3778534.95	6.32283	(07122924)	369684.96	3778565.24	8.11018	(07111824)
369709.39	3778565.24	5.43717	(07111124)	369733.82	3778565.24	3.99665	(07122924)
369760.43	3778565.24	3.13684	(07122924)	369684.96	3778627.64	4.97502	(07111824)
369709.39	3778627.64	5.20000	(07111824)	369733.82	3778627.64	3.95229	(07111124)
369760.43	3778627.64	2.54827	(07111124)	369684.56	3778740.79	1.79416	(07012824)
369708.99	3778740.79	2.07301	(07111824)	369733.42	3778740.79	2.91395	(07111824)
369760.02	3778740.79	2.96775	(07111824)	369684.59	3778685.54	2.38490	(07111824)
369709.02	3778685.54	3.64006	(07111824)	369733.45	3778685.54	3.81146	(07111824)
369760.06	3778685.54	2.94910	(07111124)	369682.12	3778778.17	1.56526	(07012824)
369724.72	3778778.17	1.87337	(07111824)	369767.32	3778778.17	2.67417	(07111824)
369809.92	3778778.17	2.00412	(07111124)	369852.52	3778778.17	1.32727	(07111124)
369983.65	3778767.63	0.84576	(05120324)	369914.44	3778779.51	0.98838	(07010324)
369883.78	3778779.51	1.08124	(07010324)	369949.38	3778777.05	0.96452	(07122924)
369810.59	3778741.35	1.97155	(07111124)	369828.20	3778628.60	1.79076	(07122924)
369866.96	3778657.96	1.40509	(06013024)	369904.54	3778679.10	1.22019	(06013024)
369858.74	3778708.37	1.33607	(07122924)	369905.71	3778639.08	1.41090	(07020424)
369885.75	3778619.11	1.65253	(07020424)	369638.62	3778030.06	1.12093	(06010524)
369698.03	3778231.80	2.86014	(05010424)	369682.83	3778161.33	2.41046	(06020524)
369653.81	3778099.15	1.64451	(06010524)	369666.25	3778059.08	1.28348	(06020524)
369722.90	3778230.42	2.87291	(05010424)	369715.99	3778190.35	2.39869	(05010424)
369703.56	3778158.57	2.14765	(06020524)	369686.98	3778126.79	2.08736	(06020524)
369675.92	3778097.77	1.77529	(06020524)	369703.56	3778108.82	1.89260	(06020524)
369727.05	3778139.22	1.83181	(05010424)	369903.91	3778552.37	2.27083m	(05012424)
369866.61	3778563.43	2.38352m	(05012424)	369873.52	3778516.45	2.73800	(07013124)
369887.33	3778491.57	3.05403	(07013124)	369859.70	3778444.59	3.30041	(05010524)
369854.17	3778327.22	2.81289	(06021224)	369643.37	3778672.46	2.63781	(07012824)
369644.15	3778798.32	1.27675	(07012824)	369649.67	3779013.88	0.60228	(06112424)
369649.67	3778913.01	0.80919	(07012824)	369580.58	3779019.41	0.68236	(06112424)
369573.68	3778911.63	0.83052	(06112424)	369575.06	3778832.87	1.01183	(06012724)
369591.64	3778749.96	1.47628	(06112424)	369640.00	3778638.03	3.40502	(07012824)
369590.26	3778698.83	1.78999	(06112424)	369569.53	3778751.34	1.39728	(06012724)
369552.95	3778835.63	1.02945	(06012724)	369547.42	3778906.10	0.83971	(06012724)
369612.46	3778561.84	6.71314	(05121824)	369551.26	3778615.39	3.22534m	(07121924)
369491.97	3778688.07	1.85035	(07011524)	369486.23	3778783.69	1.10282	(07011524)
369532.13	3778514.03	14.47568	(07111924)	369467.11	3778588.61	6.12410	(07111924)
369442.24	3778525.50	5.48974	(07111724)	369426.94	3778653.64	2.49933	(07111924)
369430.77	3778596.26	5.78241	(07111924)	369382.96	3778730.14	1.55543	(06120924)
369384.87	3778676.59	2.51673	(07111924)	369398.26	3778498.73	5.25484	(07111724)
369245.26	3778531.24	2.56761	(07111724)	369245.26	3778441.35	1.26558	(06020224)

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**MODELOPTs: RegDFAULT CONC ELEV

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM10 ***
INCLUDING SOURCE(S): AREA1 , AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369247.17	3778341.90	1.20287	(07021024)	369797.86	3778158.54	1.77259	(05011224)

*** AERMOD - VERSION 11353 *** *** J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\ *** 11/27/12
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**MODELOPTs: RegDFAULT CONC ELEV

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): AREA1 , AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	17.17594	(07121324)	369686.20	3778352.98	8.37133	(07120324)
369701.74	3778534.95	6.32283	(07122924)	369684.96	3778565.24	8.11018	(07111824)
369709.39	3778565.24	5.43717	(07111124)	369733.82	3778565.24	3.99665	(07122924)
369760.43	3778565.24	3.13684	(07122924)	369684.96	3778627.64	4.97502	(07111824)
369709.39	3778627.64	5.20000	(07111824)	369733.82	3778627.64	3.95229	(07111124)
369760.43	3778627.64	2.54827	(07111124)	369684.56	3778740.79	1.79416	(07012824)
369708.99	3778740.79	2.07301	(07111824)	369733.42	3778740.79	2.91395	(07111824)
369760.02	3778740.79	2.96775	(07111824)	369684.59	3778685.54	2.38490	(07111824)
369709.02	3778685.54	3.64006	(07111824)	369733.45	3778685.54	3.81146	(07111824)
369760.06	3778685.54	2.94910	(07111124)	369682.12	3778778.17	1.56526	(07012824)
369724.72	3778778.17	1.87337	(07111824)	369767.32	3778778.17	2.67417	(07111824)
369809.92	3778778.17	2.00412	(07111124)	369852.52	3778778.17	1.32727	(07111124)
369983.65	3778767.63	0.84576	(05120324)	369914.44	3778779.51	0.98838	(07010324)
369883.78	3778779.51	1.08124	(07010324)	369949.38	3778777.05	0.96452	(07122924)
369810.59	3778741.35	1.97155	(07111124)	369828.20	3778628.60	1.79076	(07122924)
369866.96	3778657.96	1.40509	(06013024)	369904.54	3778679.10	1.22019	(06013024)
369858.74	3778708.37	1.33607	(07122924)	369905.71	3778639.08	1.41090	(07020424)
369885.75	3778619.11	1.65253	(07020424)	369638.62	3778030.06	1.12093	(06010524)
369698.03	3778231.80	2.86014	(05010424)	369682.83	3778161.33	2.41046	(06020524)
369653.81	3778099.15	1.64451	(06010524)	369666.25	3778059.08	1.28348	(06020524)
369722.90	3778230.42	2.87291	(05010424)	369715.99	3778190.35	2.39869	(05010424)
369703.56	3778158.57	2.14765	(06020524)	369686.98	3778126.79	2.08736	(06020524)
369675.92	3778097.77	1.77529	(06020524)	369703.56	3778108.82	1.89260	(06020524)
369727.05	3778139.22	1.83181	(05010424)	369903.91	3778552.37	2.27083m	(05012424)
369866.61	3778563.43	2.38352m	(05012424)	369873.52	3778516.45	2.73800	(07013124)

Harvard-Westlake School Parking Structure Project
Localized Construction PM_{10} Emissions

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       369887.33   3778491.57        3.05403  (07013124)              369859.70   3778444.59        3.30041  (05010524)
       369854.17   3778327.22        2.81289  (06021224)              369643.37   3778672.46        2.63781  (07012824)
       369644.15   3778798.32        1.27675  (07012824)              369649.67   3779013.88        0.60228  (06112424)
       369649.67   3778913.01        0.80919  (07012824)              369580.58   3779019.41        0.68236  (06112424)
       369573.68   3778911.63        0.83052  (06112424)              369575.06   3778832.87        1.01183  (06012724)
       369591.64   3778749.96        1.47628  (06112424)              369640.00   3778638.03        3.40502  (07012824)
       369590.26   3778698.83        1.78999  (06112424)              369569.53   3778751.34        1.39728  (06012724)
       369552.95   3778835.63        1.02945  (06012724)              369547.42   3778906.10        0.83971  (06012724)
       369612.46   3778561.84        6.71314  (05121824)              369551.26   3778615.39        3.22534m (07121924)
       369491.97   3778688.07        1.85035  (07011524)              369486.23   3778783.69        1.10282  (07011524)
       369532.13   3778514.03       14.47568  (07111924)              369467.11   3778588.61        6.12410  (07111924)
       369442.24   3778525.50        5.48974  (07111724)              369426.94   3778653.64        2.49933  (07111924)
       369430.77   3778596.26        5.78241  (07111924)              369382.96   3778730.14        1.55543  (06120924)
       369384.87   3778676.59        2.51673  (07111924)              369398.26   3778498.73        5.25484  (07111724)
       369245.26   3778531.24        2.56761  (07111724)              369245.26   3778441.35        1.26558  (06020224)
 *** AERMOD - VERSION  11353 ***   *** J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\ ***        11/27/12
                                   ***                                                                    ***        11:31:58
                                                                                                                     PAGE  11
 **MODELOPTs:  RegDFAULT CONC                                          ELEV


                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     AREA1       , AREA2       ,

                                           *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                      ** CONC OF PM_10    IN MICROGRAMS/M**3                        **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       369247.17   3778341.90        1.20287  (07021024)              369797.86   3778158.54        1.77259  (05011224)
 *** AERMOD - VERSION  11353 ***   *** J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\ ***        11/27/12
                                   ***                                                                    ***        11:31:58
                                                                                                                     PAGE  12
 **MODELOPTs:  RegDFAULT CONC                                          ELEV


                                          *** THE SUMMARY OF HIGHEST 24-HR RESULTS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3                        **

                                                        DATE                                                          NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PM10     HIGH   1ST HIGH VALUE IS      17.17594  ON 07121324: AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC

ALL      HIGH   1ST HIGH VALUE IS      17.17594  ON 07121324: AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION  11353 ***   *** J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\ ***        11/27/12
                                   ***                                                                    ***        11:31:58
                                                                                                                     PAGE  13
 **MODELOPTs:  RegDFAULT CONC                                          ELEV


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of          154 Informational Message(s)

 A Total of        26280 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          154 Missing Hours Identified (  0.59 Percent)


    ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


    ********   WARNING MESSAGES   ********
              ***  NONE  ***


    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

Sub-Appendix e

Operational Emissions - AERMOD Output Files

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions – PM_{10}

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 7.5.0
** Lakes Environmental Software Inc.
** Date: 10/25/2012
** File: J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\Construction\AERMOD\Operational\Parking\Parking.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE Harvard Westlake Upper School Parking Infrastructure Project
   TITLETWO Operational Mobile
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 9862049
   POLLUTID PM_10
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL Parking.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOLGROUND    VOLUME     369629.448  3778438.707      240.000
** DESCRSRC Ground Level
   LOCATION VOLSECOND    VOLUME     369629.448  3778438.707      240.000
** DESCRSRC Second Floor
   LOCATION VOLTHIRD     VOLUME     369629.448  3778438.707      240.000
** DESCRSRC Third Floor
** Source Parameters **
   SRCPARAM VOLGROUND     0.002053     4.600     8.683     2.127
   SRCPARAM VOLSECOND     0.003133     9.200     8.683     4.279
   SRCPARAM VOLTHIRD       0.00282    13.800     8.683     6.419
   URBANSRC VOLGROUND
   URBANSRC VOLSECOND
   URBANSRC VOLTHIRD

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "PM10"
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP PM10     VOLGROUND VOLSECOND VOLTHIRD
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Parking.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC"
   PROFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL"
   SURFDATA 0 2005
   UAIRDATA 3190 2005
   PROFBASE 0.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST PARKING.AD\24H1GALL.PLT
   PLOTFILE 24 PM10 1ST PARKING.AD\24H1G001.PLT
   SUMMFILE Parking.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************
```

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions – PM_{10}

```
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational Mobile                                                  ***        13:55:56
                                                                                                                     PAGE   1
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                       ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Model Is Setup For Calculation of Average CONCentration Values.

  --  DEPOSITION LOGIC  --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
**Model Uses NO WET DEPLETION.  WETDPLT  =  F

**Model Uses URBAN Dispersion Algorithm for the SBL for     3 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

**Model Uses Regulatory DEFAULT Options:
       1. Stack-tip Downwash.
       2. Model Accounts for ELEVated Terrain Effects.
       3. Use Calms Processing Routine.
       4. Use Missing Data Processing Routine.
       5. No Exponential Decay for URBAN/Non-SO2.
       6. Urban Roughness Length of 1.0 Meter Assumed.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates  1 Short Term Average(s) of:  24-HR

**This Run Includes:      3 Source(s);       2 Source Group(s); and      70 Receptor(s)

**The Model Assumes A Pollutant Type of:  PM_10

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         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) =     0.00 ;  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 =      3.5 MB of RAM.

**Detailed Error/Message File:   Parking.err
**File for Summary of Results:   Parking.sum
```

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
VOLGROUND	0	0.20530E-02	369629.4	3778438.7	240.0	4.60	8.68	2.13	YES	HROFDY
VOLSECOND	0	0.31330E-02	369629.4	3778438.7	240.0	9.20	8.68	4.28	YES	HROFDY
VOLTHIRD	0	0.28200E-02	369629.4	3778438.7	240.0	13.80	8.68	6.42	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
PM10	VOLGROUND , VOLSECOND , VOLTHIRD ,
ALL	VOLGROUND , VOLSECOND , VOLTHIRD ,

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOLGROUND ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOLSECOND ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOLTHIRD ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(369670.5, 3778388.3, 238.9, 365.0, 0.0); (369686.2, 3778353.0, 240.4, 365.0, 0.0);
(369701.7, 3778534.9, 224.8, 365.0, 0.0); (369685.0, 3778565.2, 221.3, 365.0, 0.0);
(369709.4, 3778565.2, 220.8, 365.0, 0.0); (369733.8, 3778565.2, 220.3, 365.0, 0.0);
(369760.4, 3778565.2, 219.9, 365.0, 0.0); (369685.0, 3778627.6, 216.1, 365.0, 0.0);
(369709.4, 3778627.6, 215.9, 365.0, 0.0); (369733.8, 3778627.6, 215.7, 365.0, 0.0);
(369760.4, 3778627.6, 215.5, 365.0, 0.0); (369684.6, 3778740.8, 212.4, 365.0, 0.0);
(369709.0, 3778740.8, 212.3, 365.0, 0.0); (369733.4, 3778740.8, 212.3, 365.0, 0.0);
(369760.0, 3778740.8, 212.3, 365.0, 0.0); (369684.6, 3778685.5, 212.9, 365.0, 0.0);
(369709.0, 3778685.5, 212.9, 365.0, 0.0); (369733.5, 3778685.5, 212.9, 365.0, 0.0);
(369760.1, 3778685.5, 212.9, 365.0, 0.0); (369810.6, 3778741.3, 212.1, 365.0, 0.0);
(369828.2, 3778628.6, 214.6, 365.0, 0.0); (369867.0, 3778658.0, 212.8, 365.0, 0.0);
(369904.5, 3778679.1, 212.0, 365.0, 0.0); (369858.7, 3778708.4, 212.0, 365.0, 0.0);
(369905.7, 3778639.1, 214.2, 365.0, 0.0); (369885.8, 3778619.1, 215.4, 365.0, 0.0);
(369638.6, 3778030.1, 269.3, 365.0, 0.0); (369698.0, 3778231.8, 243.0, 365.0, 0.0);
(369682.8, 3778161.3, 247.8, 365.0, 0.0); (369653.8, 3778099.1, 252.5, 365.0, 0.0);
(369666.2, 3778059.1, 259.1, 365.0, 0.0); (369722.9, 3778230.4, 242.9, 365.0, 0.0);
(369716.0, 3778190.3, 244.4, 365.0, 0.0); (369703.6, 3778158.6, 247.2, 365.0, 0.0);
(369687.0, 3778126.8, 251.1, 365.0, 0.0); (369675.9, 3778097.8, 253.5, 365.0, 0.0);
(369703.6, 3778108.8, 251.0, 365.0, 0.0); (369727.0, 3778139.2, 247.0, 365.0, 0.0);
(369903.9, 3778552.4, 223.0, 365.0, 0.0); (369866.6, 3778563.4, 219.9, 365.0, 0.0);
(369873.5, 3778516.4, 227.5, 365.0, 0.0); (369887.3, 3778491.6, 232.5, 304.0, 0.0);
(369859.7, 3778444.6, 236.3, 304.0, 0.0); (369849.6, 3778322.0, 243.9, 365.0, 0.0);
(369643.4, 3778672.5, 213.2, 365.0, 0.0); (369644.1, 3778798.3, 212.1, 365.0, 0.0);
(369591.6, 3778750.0, 213.4, 365.0, 0.0); (369640.0, 3778638.0, 216.2, 365.0, 0.0);
(369590.3, 3778698.8, 214.8, 365.0, 0.0); (369569.5, 3778751.3, 213.8, 365.0, 0.0);
(369621.8, 3778549.7, 225.0, 365.0, 0.0); (369608.6, 3778540.9, 226.6, 365.0, 0.0);
(369492.0, 3778688.1, 228.6, 365.0, 0.0); (369551.4, 3778498.0, 236.0, 365.0, 0.0);
(369467.1, 3778588.6, 240.7, 365.0, 0.0); (369442.2, 3778525.5, 243.2, 365.0, 0.0);
(369426.9, 3778653.6, 236.6, 365.0, 0.0); (369430.8, 3778596.3, 241.5, 365.0, 0.0);

```
     ( 369384.9, 3778676.6,     233.1,     365.0,       0.0);        ( 369398.3, 3778498.7,     243.2,     365.0,       0.0);
     ( 369245.3, 3778531.2,     233.6,     365.0,       0.0);        ( 369245.3, 3778441.3,     240.3,     365.0,       0.0);
     ( 369484.6, 3778462.3,     244.4,     365.0,       0.0);        ( 369629.2, 3778438.7,     235.7,     365.0,      17.4);
     ( 369814.8, 3778308.8,     242.5,     365.0,       0.0);        ( 369781.3, 3778368.9,     239.6,     365.0,       0.0);
     ( 369811.0, 3778376.6,     240.3,     365.0,       0.0);        ( 369853.0, 3778354.6,     243.2,     304.0,       0.0);
     ( 369860.8, 3778292.3,     246.5,     304.0,       0.0);        ( 369856.2, 3778259.2,     245.7,     365.0,       0.0);


*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Operational Mobile                                                   ***        13:55:56
                                                                                                                        PAGE   6
 **MODELOPTs:  RegDFAULT CONC                                                ELEV      FLGPOL

                        * 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)
                             - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

                              VOLGROUND           369629.2     3778438.7           -18.43
                              VOLSECOND           369629.2     3778438.7           -18.43
                              VOLTHIRD            369629.2     3778438.7           -18.43


*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Operational Mobile                                                   ***        13:55:56
                                                                                                                        PAGE   7
 **MODELOPTs:  RegDFAULT CONC                                                ELEV      FLGPOL

                                      *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                         (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                         (METERS/SEC)

                                           1.54,   3.09,   5.14,   8.23,  10.80,


*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Operational Mobile                                                   ***        13:55:56
                                                                                                                        PAGE   8
 **MODELOPTs:  RegDFAULT CONC                                                ELEV      FLGPOL

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC   Met Version:  11059
   Profile file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:        0                  Upper air station no.:     3190
                  Name: UNKNOWN                                    Name: UNKNOWN
                  Year:   2005                                     Year:   2005

 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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 05 01 01   1 01   -1.5  0.047 -9.000 -9.000 -999.   24.      6.3  0.63   1.00   1.00    0.70  285.   12.2  279.9    8.5
 05 01 01   1 02   -1.7  0.054 -9.000 -9.000 -999.   29.      8.3  0.63   1.00   1.00    0.80  278.   12.2  279.9    8.5
 05 01 01   1 03   -2.0  0.054 -9.000 -9.000 -999.   29.      6.9  0.63   1.00   1.00    0.80  335.   12.2  279.2    8.5
 05 01 01   1 04   -2.0  0.054 -9.000 -9.000 -999.   29.      6.9  0.63   1.00   1.00    0.80  291.   12.2  278.8    8.5
 05 01 01   1 05   -2.1  0.061 -9.000 -9.000 -999.   34.      9.4  0.63   1.00   1.00    0.90  334.   12.2  278.1    8.5
 05 01 01   1 06   -0.9  0.040 -9.000 -9.000 -999.   19.      6.2  0.63   1.00   1.00    0.60  309.   12.2  278.8    8.5
 05 01 01   1 07   -1.3  0.047 -9.000 -9.000 -999.   24.      7.3  0.63   1.00   1.00    0.70  312.   12.2  278.8    8.5
 05 01 01   1 08   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   0.56    0.60  256.   12.2  279.2    8.5
 05 01 01   1 09   20.5  0.177  0.303  0.005   48.  171.    -23.9  0.63   1.00   0.33    1.00  298.   12.2  282.5    8.5
 05 01 01   1 10   52.6  0.184  1.005  0.005  684.  181.    -10.4  0.63   1.00   0.25    0.90  103.   12.2  286.4    8.5
 05 01 01   1 11  109.2  0.376  1.415  0.006  920.  529.    -42.9  0.63   1.00   0.22    2.30  136.   12.2  287.0    8.5
 05 01 01   1 12   27.8  0.303  0.917  0.007  980.  386.    -88.5  0.63   1.00   0.21    2.00  152.   12.2  287.0    8.5
 05 01 01   1 13   27.2  0.255  0.927  0.007 1037.  297.    -53.9  0.63   1.00   0.21    1.60  187.   12.2  285.9    8.5
 05 01 01   1 14   22.9  0.227  0.899  0.008 1123.  249.    -45.2  0.63   1.00   0.22    1.40  156.   12.2  287.0    8.5
 05 01 01   1 15   13.9  0.218  0.774  0.009 1179.  234.    -66.0  0.63   1.00   0.26    1.40  192.   12.2  286.4    8.5
 05 01 01   1 16    1.5  0.234  0.373  0.009 1183.  260.   -729.3  0.63   1.00   0.34    1.70  188.   12.2  285.9    8.5
 05 01 01   1 17   -3.6  0.088 -9.000 -9.000 -999.   77.     16.6  0.63   1.00   0.61    1.30  200.   12.2  285.4    8.5
 05 01 01   1 18   -1.8  0.061 -9.000 -9.000 -999.   34.     11.0  0.63   1.00   1.00    0.90  162.   12.2  284.9    8.5
 05 01 01   1 19   -1.1  0.047 -9.000 -9.000 -999.   24.      8.6  0.63   1.00   1.00    0.70  176.   12.2  284.9    8.5
 05 01 01   1 20   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  210.   12.2  284.2    8.5
 05 01 01   1 21   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  236.   12.2  284.2    8.5
 05 01 01   1 22   -0.9  0.040 -9.000 -9.000 -999.   19.      6.3  0.63   1.00   1.00    0.60  272.   12.2  283.8    8.5
 05 01 01   1 23   -0.9  0.040 -9.000 -9.000 -999.   19.      6.3  0.63   1.00   1.00    0.60  251.   12.2  283.1    8.5
 05 01 01   1 24   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  301.   12.2  282.5    8.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 05 01 01 01    8.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 05 01 01 01   12.2 1  285.    0.70  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)


*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
```

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions – PM_{10}

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM10 ***
INCLUDING SOURCE(S): VOLGROUND , VOLSECOND , VOLTHIRD ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.16944	(05011624)	369686.20	3778352.98	0.10062	(05011624)
369701.74	3778534.95	0.08421	(07122924)	369684.96	3778565.24	0.06542	(07111124)
369709.39	3778565.24	0.06097	(07111124)	369733.82	3778565.24	0.05823	(07122924)
369760.43	3778565.24	0.05253	(07122924)	369684.96	3778627.64	0.03516	(07111824)
369709.39	3778627.64	0.03877	(07111124)	369733.82	3778627.64	0.03991	(07111124)
369760.43	3778627.64	0.03302	(07111124)	369684.56	3778740.79	0.01844	(07012824)
369708.99	3778740.79	0.01813	(05020724)	369733.42	3778740.79	0.01972	(07111824)
369760.02	3778740.79	0.02073	(07111124)	369684.59	3778685.54	0.02336	(05020724)
369709.02	3778685.54	0.02524	(07111824)	369733.45	3778685.54	0.02701	(07111824)
369760.06	3778685.54	0.02861	(07111124)	369810.59	3778741.35	0.02079	(07111124)
369828.20	3778628.60	0.03006	(07122924)	369866.96	3778657.96	0.02383	(07122924)
369904.54	3778679.10	0.01968	(07122924)	369858.74	3778708.37	0.02045	(07122924)
369905.71	3778639.08	0.01902	(07122924)	369885.75	3778619.11	0.02102	(07122924)
369638.62	3778030.06	0.03352	(06010524)	369698.03	3778231.80	0.04550	(05011724)
369682.83	3778161.33	0.04495	(06020524)	369653.81	3778099.15	0.03989	(06010524)
369666.25	3778059.08	0.03575	(06010524)	369722.90	3778230.42	0.04048	(06122724)
369715.99	3778190.35	0.03745	(05011724)	369703.56	3778158.57	0.04050	(06020524)
369686.98	3778126.79	0.04352	(06020524)	369675.92	3778097.77	0.04005	(06020524)
369703.56	3778108.82	0.03988	(06020524)	369727.05	3778139.22	0.03709	(07112524)
369903.91	3778552.37	0.02726	(07112824)	369866.61	3778563.43	0.02728	(07112824)
369873.52	3778516.45	0.03635	(07112824)	369887.33	3778491.57	0.04052	(05010524)
369859.70	3778444.59	0.05692	(05010524)	369849.63	3778322.03	0.04911	(05120824)
369643.37	3778672.46	0.03337	(06112424)	369644.15	3778798.32	0.01896	(06112424)
369591.64	3778749.96	0.02444	(06112424)	369640.00	3778638.03	0.04200	(06112424)
369590.26	3778698.83	0.03037	(06112424)	369569.53	3778751.34	0.02214	(06112424)
369621.84	3778549.71	0.09475	(06112424)	369608.62	3778540.93	0.09797	(06112424)
369491.97	3778688.07	0.02185	(07011524)	369551.43	3778498.04	0.14832	(07112024)
369467.11	3778588.61	0.04876	(07010224)	369442.24	3778525.50	0.07723	(07112024)
369426.94	3778653.64	0.03086	(07010224)	369430.77	3778596.26	0.04793	(07112024)
369384.87	3778676.59	0.02464	(07010224)	369398.26	3778498.73	0.05781	(07111724)
369245.26	3778531.24	0.02612	(07111724)	369245.26	3778441.35	0.02062	(06020224)
369484.59	3778462.33	0.09645	(07111724)	369629.21	3778438.68	0.00000	(00000000)
369814.80	3778308.83	0.04706	(06011024)	369781.29	3778368.86	0.07850	(05120824)
369811.05	3778376.63	0.06564	(05120824)	369852.96	3778354.56	0.05462	(05120824)
369860.75	3778292.26	0.04655	(06122224)	369856.21	3778259.16	0.04302	(07122424)

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOLGROUND , VOLSECOND , VOLTHIRD ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.16944	(05011624)	369686.20	3778352.98	0.10062	(05011624)
369701.74	3778534.95	0.08421	(07122924)	369684.96	3778565.24	0.06542	(07111124)
369709.39	3778565.24	0.06097	(07111124)	369733.82	3778565.24	0.05823	(07122924)
369760.43	3778565.24	0.05253	(07122924)	369684.96	3778627.64	0.03516	(07111824)
369709.39	3778627.64	0.03877	(07111124)	369733.82	3778627.64	0.03991	(07111124)
369760.43	3778627.64	0.03302	(07111124)	369684.56	3778740.79	0.01844	(07012824)
369708.99	3778740.79	0.01813	(05020724)	369733.42	3778740.79	0.01972	(07111824)
369760.02	3778740.79	0.02073	(07111124)	369684.59	3778685.54	0.02336	(05020724)
369709.02	3778685.54	0.02524	(07111824)	369733.45	3778685.54	0.02701	(07111824)
369760.06	3778685.54	0.02861	(07111124)	369810.59	3778741.35	0.02079	(07111124)
369828.20	3778628.60	0.03006	(07122924)	369866.96	3778657.96	0.02383	(07122924)
369904.54	3778679.10	0.01968	(07122924)	369858.74	3778708.37	0.02045	(07122924)
369905.71	3778639.08	0.01902	(07122924)	369885.75	3778619.11	0.02102	(07122924)
369638.62	3778030.06	0.03352	(06010524)	369698.03	3778231.80	0.04550	(05011724)
369682.83	3778161.33	0.04495	(06020524)	369653.81	3778099.15	0.03989	(06010524)
369666.25	3778059.08	0.03575	(06010524)	369722.90	3778230.42	0.04048	(06122724)
369715.99	3778190.35	0.03745	(05011724)	369703.56	3778158.57	0.04050	(06020524)
369686.98	3778126.79	0.04352	(06020524)	369675.92	3778097.77	0.04005	(06020524)
369703.56	3778108.82	0.03988	(06020524)	369727.05	3778139.22	0.03709	(07112524)
369903.91	3778552.37	0.02726	(07112824)	369866.61	3778563.43	0.02728	(07112824)
369873.52	3778516.45	0.03635	(07112824)	369887.33	3778491.57	0.04052	(05010524)
369859.70	3778444.59	0.05692	(05010524)	369849.63	3778322.03	0.04911	(05120824)
369643.37	3778672.46	0.03337	(06112424)	369644.15	3778798.32	0.01896	(06112424)
369591.64	3778749.96	0.02444	(06112424)	369640.00	3778638.03	0.04200	(06112424)
369590.26	3778698.83	0.03037	(06112424)	369569.53	3778751.34	0.02214	(06112424)
369621.84	3778549.71	0.09475	(06112424)	369608.62	3778540.93	0.09797	(06112424)
369491.97	3778688.07	0.02185	(07011524)	369551.43	3778498.04	0.14832	(07112024)
369467.11	3778588.61	0.04876	(07010224)	369442.24	3778525.50	0.07723	(07112024)
369426.94	3778653.64	0.03086	(07010224)	369430.77	3778596.26	0.04793	(07112024)
369384.87	3778676.59	0.02464	(07010224)	369398.26	3778498.73	0.05781	(07111724)
369245.26	3778531.24	0.02612	(07111724)	369245.26	3778441.35	0.02062	(06020224)
369484.59	3778462.33	0.09645	(07111724)	369629.21	3778438.68	0.00000	(00000000)
369814.80	3778308.83	0.04706	(06011024)	369781.29	3778368.86	0.07850	(05120824)
369811.05	3778376.63	0.06564	(05120824)	369852.96	3778354.56	0.05462	(05120824)
369860.75	3778292.26	0.04655	(06122224)	369856.21	3778259.16	0.04302	(07122424)

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions – PM_{10}

```
                                  ** CONC OF PM_10    IN MICROGRAMS/M**3                        **

                                                    DATE                                                                  NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PM10     HIGH   1ST HIGH VALUE IS       0.16944  ON 05011624: AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC

ALL      HIGH   1ST HIGH VALUE IS       0.16944  ON 05011624: AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR


*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational Mobile                                                   ***         13:55:56
                                                                                                                       PAGE  12
 **MODELOPTs:  RegDFAULT CONC                                                ELEV      FLGPOL


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of          154 Informational Message(s)

 A Total of        26280 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          154 Missing Hours Identified (  0.59 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
```

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions – $PM_{2.5}$

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 7.5.0
** Lakes Environmental Software Inc.
** Date: 10/25/2012
** File: J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\Construction\AERMOD\Operational\Parking PM2\Parking PM2.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE Harvard Westlake Upper School Parking Infrastructure Project
   TITLETWO Parking Structure PM2.5
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 9862049
   POLLUTID PM_2.5
   FLAGPOLE 0.00
   RUNORNOT RUN
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOLGROUND    VOLUME     369629.448  3778438.707      235.710
** DESCRSRC Ground Level
   LOCATION VOLSECOND    VOLUME     369629.448  3778438.707      235.710
** DESCRSRC Second Floor
   LOCATION VOLTHIRD     VOLUME     369629.448  3778438.707      235.710
** DESCRSRC Third Floor
** Source Parameters **
   SRCPARAM VOLGROUND     0.001889     4.600     8.683     2.127
   SRCPARAM VOLSECOND     0.002883     9.200     8.683     4.279
   SRCPARAM VOLTHIRD      0.002595    13.800     8.683     6.419
   URBANSRC VOLGROUND
   URBANSRC VOLSECOND
   URBANSRC VOLTHIRD

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "PM2.5"
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP PM2.5    VOLGROUND VOLSECOND VOLTHIRD
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "Parking PM2.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC"
   PROFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL"
   SURFDATA 0 2005
   UAIRDATA 3190 2005
   PROFBASE 0.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL "PARKING PM2.AD\AN00GALL.PLT"
   PLOTFILE ANNUAL PM2.5 "PARKING PM2.AD\AN00G001.PLT"
   SUMMFILE "Parking PM2.sum"
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure PM2.5                                              ***        14:16:07
                                                                                                                      PAGE   1
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
```

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions – $PM_{2.5}$

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Model Is Setup For Calculation of Average CONCentration Values.

  --  DEPOSITION LOGIC  --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
**Model Uses NO WET DEPLETION.  WETDPLT  =  F

**Model Uses URBAN Dispersion Algorithm for the SBL for     3 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

**Model Uses Regulatory DEFAULT Options:
       1. Stack-tip Downwash.
       2. Model Accounts for ELEVated Terrain Effects.
       3. Use Calms Processing Routine.
       4. Use Missing Data Processing Routine.
       5. No Exponential Decay for URBAN/Non-SO2.
       6. Urban Roughness Length of 1.0 Meter Assumed.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates ANNUAL Averages Only

**This Run Includes:      3 Source(s);       2 Source Group(s); and      70 Receptor(s)

**The Model Assumes A Pollutant Type of:  PM_2.5

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
        Model Outputs Tables of ANNUAL Averages by Receptor
        Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
        Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     0.00 ;  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 =      3.5 MB of RAM.

**File for Summary of Results:   Parking PM2.sum
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure PM2.5                                             ***        14:16:07
                                                                                                                     PAGE   2
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                          *** 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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

VOLGROUND        0   0.18890E-02  369629.4 3778438.7   235.7     4.60     8.68     2.13     YES   HROFDY
VOLSECOND        0   0.28830E-02  369629.4 3778438.7   235.7     9.20     8.68     4.28     YES   HROFDY
VOLTHIRD         0   0.25950E-02  369629.4 3778438.7   235.7    13.80     8.68     6.42     YES   HROFDY
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure PM2.5                                             ***        14:16:07
                                                                                                                     PAGE   3
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                     *** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID                                        SOURCE IDs


 PM2.5     VOLGROUND   , VOLSECOND   , VOLTHIRD    ,


 ALL       VOLGROUND   , VOLSECOND   , VOLTHIRD    ,
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure PM2.5                                             ***        14:16:07
                                                                                                                     PAGE   4
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = VOLGROUND    ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOLSECOND    ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOLTHIRD     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00
```

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 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure PM2.5                                              ***        14:16:07
                                                                                                                       PAGE   5
 **MODELOPTs:  RegDFAULT CONC                                              ELEV     FLGPOL


                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)

     ( 369670.5, 3778388.3,     238.9,     365.0,       0.0);         ( 369686.2, 3778353.0,    240.4,     365.0,       0.0);
     ( 369701.7, 3778534.9,     224.8,     365.0,       0.0);         ( 369685.0, 3778565.2,    221.3,     365.0,       0.0);
     ( 369709.4, 3778565.2,     220.8,     365.0,       0.0);         ( 369733.8, 3778565.2,    220.3,     365.0,       0.0);
     ( 369760.4, 3778565.2,     219.9,     365.0,       0.0);         ( 369685.0, 3778627.6,    216.1,     365.0,       0.0);
     ( 369709.4, 3778627.6,     215.9,     365.0,       0.0);         ( 369733.8, 3778627.6,    215.7,     365.0,       0.0);
     ( 369760.4, 3778627.6,     215.5,     365.0,       0.0);         ( 369684.6, 3778740.8,    212.4,     365.0,       0.0);
     ( 369709.0, 3778740.8,     212.3,     365.0,       0.0);         ( 369733.4, 3778740.8,    212.3,     365.0,       0.0);
     ( 369760.0, 3778740.8,     212.3,     365.0,       0.0);         ( 369684.6, 3778685.5,    212.9,     365.0,       0.0);
     ( 369709.0, 3778685.5,     212.9,     365.0,       0.0);         ( 369733.5, 3778685.5,    212.9,     365.0,       0.0);
     ( 369760.1, 3778685.5,     212.9,     365.0,       0.0);         ( 369810.6, 3778741.3,    212.1,     365.0,       0.0);
     ( 369828.2, 3778628.6,     214.6,     365.0,       0.0);         ( 369867.0, 3778658.0,    212.8,     365.0,       0.0);
     ( 369904.5, 3778679.1,     212.0,     365.0,       0.0);         ( 369858.7, 3778708.4,    212.0,     365.0,       0.0);
     ( 369905.7, 3778639.1,     214.2,     365.0,       0.0);         ( 369885.8, 3778619.1,    215.4,     365.0,       0.0);
     ( 369638.6, 3778030.1,     269.3,     365.0,       0.0);         ( 369698.0, 3778231.8,    243.0,     365.0,       0.0);
     ( 369682.8, 3778161.3,     247.8,     365.0,       0.0);         ( 369653.8, 3778099.1,    252.5,     365.0,       0.0);
     ( 369666.2, 3778059.1,     259.1,     365.0,       0.0);         ( 369722.9, 3778230.4,    242.9,     365.0,       0.0);
     ( 369716.0, 3778190.3,     244.4,     365.0,       0.0);         ( 369703.6, 3778158.6,    247.2,     365.0,       0.0);
     ( 369687.0, 3778126.8,     251.1,     365.0,       0.0);         ( 369675.9, 3778097.8,    253.5,     365.0,       0.0);
     ( 369703.6, 3778108.8,     251.0,     365.0,       0.0);         ( 369727.0, 3778139.2,    247.0,     365.0,       0.0);
     ( 369903.9, 3778552.4,     223.0,     365.0,       0.0);         ( 369866.6, 3778563.4,    219.9,     365.0,       0.0);
     ( 369873.5, 3778516.4,     227.5,     365.0,       0.0);         ( 369887.3, 3778491.6,    232.5,     304.0,       0.0);
     ( 369859.7, 3778444.6,     236.3,     304.0,       0.0);         ( 369849.6, 3778322.0,    243.9,     365.0,       0.0);
     ( 369643.4, 3778672.5,     213.2,     365.0,       0.0);         ( 369644.1, 3778798.3,    212.1,     365.0,       0.0);
     ( 369591.6, 3778750.0,     213.4,     365.0,       0.0);         ( 369640.0, 3778638.0,    216.2,     365.0,       0.0);
     ( 369590.3, 3778698.8,     214.8,     365.0,       0.0);         ( 369569.5, 3778751.3,    213.8,     365.0,       0.0);
     ( 369621.8, 3778549.7,     225.0,     365.0,       0.0);         ( 369608.6, 3778540.9,    226.6,     365.0,       0.0);
     ( 369492.0, 3778688.1,     228.6,     365.0,       0.0);         ( 369551.4, 3778498.0,    236.0,     365.0,       0.0);
     ( 369467.1, 3778588.6,     240.7,     365.0,       0.0);         ( 369442.2, 3778525.5,    243.2,     365.0,       0.0);
     ( 369426.9, 3778653.6,     236.6,     365.0,       0.0);         ( 369430.8, 3778596.3,    241.5,     365.0,       0.0);
     ( 369384.9, 3778676.6,     233.1,     365.0,       0.0);         ( 369398.3, 3778498.7,    243.2,     365.0,       0.0);
     ( 369245.3, 3778531.2,     233.6,     365.0,       0.0);         ( 369245.3, 3778441.3,    240.3,     365.0,       0.0);
     ( 369484.6, 3778462.3,     244.4,     365.0,       0.0);         ( 369629.2, 3778438.7,    235.7,     365.0,      17.4);
     ( 369814.8, 3778308.8,     242.5,     365.0,       0.0);         ( 369781.3, 3778368.9,    239.6,     365.0,       0.0);
     ( 369811.0, 3778376.6,     240.3,     365.0,       0.0);         ( 369853.0, 3778354.6,    243.2,     304.0,       0.0);
     ( 369860.8, 3778292.3,     246.5,     304.0,       0.0);         ( 369856.2, 3778259.2,    245.7,     365.0,       0.0);
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure PM2.5                                              ***        14:16:07
                                                                                                                       PAGE   6
 **MODELOPTs:  RegDFAULT CONC                                              ELEV     FLGPOL


                      * 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)
                            - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

                             VOLGROUND           369629.2     3778438.7          -18.43
                             VOLSECOND           369629.2     3778438.7          -18.43
                             VOLTHIRD            369629.2     3778438.7          -18.43
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure PM2.5                                              ***        14:16:07
                                                                                                                       PAGE   7
 **MODELOPTs:  RegDFAULT CONC                                              ELEV     FLGPOL


                                            *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                           (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,  10.80,
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure PM2.5                                              ***        14:16:07
                                                                                                                       PAGE   8
 **MODELOPTs:  RegDFAULT CONC                                              ELEV     FLGPOL


                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC   Met Version:  11059
   Profile file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:       0                  Upper air station no.:     3190
                  Name: UNKNOWN                                     Name: UNKNOWN
                  Year:   2005                                      Year:   2005

 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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 05 01 01   1 01   -1.5  0.047 -9.000 -9.000 -999.   24.      6.3  0.63   1.00   1.00    0.70  285.   12.2  279.9    8.5
 05 01 01   1 02   -1.7  0.054 -9.000 -9.000 -999.   29.      8.3  0.63   1.00   1.00    0.80  278.   12.2  279.9    8.5
 05 01 01   1 03   -2.0  0.054 -9.000 -9.000 -999.   29.      6.9  0.63   1.00   1.00    0.80  335.   12.2  279.2    8.5
 05 01 01   1 04   -2.0  0.054 -9.000 -9.000 -999.   29.      6.9  0.63   1.00   1.00    0.80  291.   12.2  278.8    8.5
 05 01 01   1 05   -2.1  0.061 -9.000 -9.000 -999.   34.      9.4  0.63   1.00   1.00    0.90  334.   12.2  278.1    8.5
```

```
05 01 01   1 06   -0.9  0.040 -9.000 -9.000 -999.   19.      6.2  0.63   1.00   1.00    0.60  309.   12.2  278.8    8.5
05 01 01   1 07   -1.3  0.047 -9.000 -9.000 -999.   24.      7.3  0.63   1.00   1.00    0.70  312.   12.2  278.8    8.5
05 01 01   1 08   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   0.56    0.60  256.   12.2  279.2    8.5
05 01 01   1 09   20.5  0.177  0.303  0.005   48.  171.    -23.9  0.63   1.00   0.33    1.00  298.   12.2  282.5    8.5
05 01 01   1 10   52.6  0.184  1.005  0.005  684.  181.    -10.4  0.63   1.00   0.25    0.90  103.   12.2  286.4    8.5
05 01 01   1 11  109.2  0.376  1.415  0.006  920.  529.    -42.9  0.63   1.00   0.22    2.30  136.   12.2  287.0    8.5
05 01 01   1 12   27.8  0.303  0.917  0.007  980.  386.    -88.5  0.63   1.00   0.21    2.00  152.   12.2  287.0    8.5
05 01 01   1 13   27.2  0.255  0.927  0.007 1037.  297.    -53.9  0.63   1.00   0.21    1.60  187.   12.2  285.9    8.5
05 01 01   1 14   22.9  0.227  0.899  0.008 1123.  249.    -45.2  0.63   1.00   0.22    1.40  156.   12.2  287.0    8.5
05 01 01   1 15   13.9  0.218  0.774  0.009 1179.  234.    -66.0  0.63   1.00   0.26    1.40  192.   12.2  286.4    8.5
05 01 01   1 16    1.5  0.234  0.373  0.009 1183.  260.   -729.3  0.63   1.00   0.34    1.70  188.   12.2  285.9    8.5
05 01 01   1 17   -3.6  0.088 -9.000 -9.000 -999.   77.     16.6  0.63   1.00   0.61    1.30  200.   12.2  285.4    8.5
05 01 01   1 18   -1.8  0.061 -9.000 -9.000 -999.   34.     11.0  0.63   1.00   1.00    0.90  162.   12.2  284.9    8.5
05 01 01   1 19   -1.1  0.047 -9.000 -9.000 -999.   24.      8.6  0.63   1.00   1.00    0.70  176.   12.2  284.9    8.5
05 01 01   1 20   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  210.   12.2  284.2    8.5
05 01 01   1 21   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  236.   12.2  284.2    8.5
05 01 01   1 22   -0.9  0.040 -9.000 -9.000 -999.   19.      6.3  0.63   1.00   1.00    0.60  272.   12.2  283.8    8.5
05 01 01   1 23   -0.9  0.040 -9.000 -9.000 -999.   19.      6.3  0.63   1.00   1.00    0.60  251.   12.2  283.1    8.5
05 01 01   1 24   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  301.   12.2  282.5    8.5


First hour of profile data
YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
05 01 01 01    8.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
05 01 01 01   12.2 1  285.    0.70  -999.0   99.0  -99.00  -99.00

F indicates top of profile (=1) or below (=0)
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure PM2.5                                             ***        14:16:07
                                                                                                                     PAGE   9
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   3 YEARS FOR SOURCE GROUP: PM2.5    ***
                                  INCLUDING SOURCE(S):     VOLGROUND   , VOLSECOND   , VOLTHIRD    ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3                        **

      X-COORD (M)   Y-COORD (M)        CONC                     X-COORD (M)   Y-COORD (M)        CONC
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       369670.52    3778388.27        0.03324                    369686.20    3778352.98        0.01559
       369701.74    3778534.95        0.01623                    369684.96    3778565.24        0.01390
       369709.39    3778565.24        0.01135                    369733.82    3778565.24        0.00904
       369760.43    3778565.24        0.00707                    369684.96    3778627.64        0.00768
       369709.39    3778627.64        0.00690                    369733.82    3778627.64        0.00602
       369760.43    3778627.64        0.00508                    369684.56    3778740.79        0.00354
       369708.99    3778740.79        0.00340                    369733.42    3778740.79        0.00319
       369760.02    3778740.79        0.00293                    369684.59    3778685.54        0.00496
       369709.02    3778685.54        0.00466                    369733.45    3778685.54        0.00426
       369760.06    3778685.54        0.00379                    369810.59    3778741.35        0.00240
       369828.20    3778628.60        0.00327                    369866.96    3778657.96        0.00240
       369904.54    3778679.10        0.00189                    369858.74    3778708.37        0.00215
       369905.71    3778639.08        0.00209                    369885.75    3778619.11        0.00244
       369638.62    3778030.06        0.00042                    369698.03    3778231.80        0.00331
       369682.83    3778161.33        0.00156                    369653.81    3778099.15        0.00089
       369666.25    3778059.08        0.00062                    369722.90    3778230.42        0.00356
       369715.99    3778190.35        0.00238                    369703.56    3778158.57        0.00167
       369686.98    3778126.79        0.00115                    369675.92    3778097.77        0.00089
       369703.56    3778108.82        0.00109                    369727.05    3778139.22        0.00160
       369903.91    3778552.37        0.00272                    369866.61    3778563.43        0.00323
       369873.52    3778516.45        0.00369                    369887.33    3778491.57        0.00374
       369859.70    3778444.59        0.00507                    369849.63    3778322.03        0.00557
       369643.37    3778672.46        0.00567                    369644.15    3778798.32        0.00264
       369591.64    3778749.96        0.00323                    369640.00    3778638.03        0.00759
       369590.26    3778698.83        0.00440                    369569.53    3778751.34        0.00304
       369621.84    3778549.71        0.02086                    369608.62    3778540.93        0.02268
       369491.97    3778688.07        0.00355                    369551.43    3778498.04        0.02425
       369467.11    3778588.61        0.00541                    369442.24    3778525.50        0.00563
       369426.94    3778653.64        0.00333                    369430.77    3778596.26        0.00415
       369384.87    3778676.59        0.00251                    369398.26    3778498.73        0.00383
       369245.26    3778531.24        0.00166                    369245.26    3778441.35        0.00133
       369484.59    3778462.33        0.00820                    369629.21    3778438.68        0.00000
       369814.80    3778308.83        0.00633                    369781.29    3778368.86        0.00961
       369811.05    3778376.63        0.00763                    369852.96    3778354.56        0.00576
       369860.75    3778292.26        0.00484                    369856.21    3778259.16        0.00432
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure PM2.5                                             ***        14:16:07
                                                                                                                     PAGE  10
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   3 YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     VOLGROUND   , VOLSECOND   , VOLTHIRD    ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3                        **

      X-COORD (M)   Y-COORD (M)        CONC                     X-COORD (M)   Y-COORD (M)        CONC
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       369670.52    3778388.27        0.03324                    369686.20    3778352.98        0.01559
       369701.74    3778534.95        0.01623                    369684.96    3778565.24        0.01390
       369709.39    3778565.24        0.01135                    369733.82    3778565.24        0.00904
       369760.43    3778565.24        0.00707                    369684.96    3778627.64        0.00768
       369709.39    3778627.64        0.00690                    369733.82    3778627.64        0.00602
       369760.43    3778627.64        0.00508                    369684.56    3778740.79        0.00354
       369708.99    3778740.79        0.00340                    369733.42    3778740.79        0.00319
       369760.02    3778740.79        0.00293                    369684.59    3778685.54        0.00496
       369709.02    3778685.54        0.00466                    369733.45    3778685.54        0.00426
       369760.06    3778685.54        0.00379                    369810.59    3778741.35        0.00240
       369828.20    3778628.60        0.00327                    369866.96    3778657.96        0.00240
       369904.54    3778679.10        0.00189                    369858.74    3778708.37        0.00215
       369905.71    3778639.08        0.00209                    369885.75    3778619.11        0.00244
       369638.62    3778030.06        0.00042                    369698.03    3778231.80        0.00331
       369682.83    3778161.33        0.00156                    369653.81    3778099.15        0.00089
       369666.25    3778059.08        0.00062                    369722.90    3778230.42        0.00356
       369715.99    3778190.35        0.00238                    369703.56    3778158.57        0.00167
       369686.98    3778126.79        0.00115                    369675.92    3778097.77        0.00089
       369703.56    3778108.82        0.00109                    369727.05    3778139.22        0.00160
       369903.91    3778552.37        0.00272                    369866.61    3778563.43        0.00323
       369873.52    3778516.45        0.00369                    369887.33    3778491.57        0.00374
```

```
         369859.70    3778444.59        0.00507                    369849.63    3778322.03        0.00557
         369643.37    3778672.46        0.00567                    369644.15    3778798.32        0.00264
         369591.64    3778749.96        0.00323                    369640.00    3778638.03        0.00759
         369590.26    3778698.83        0.00440                    369569.53    3778751.34        0.00304
         369621.84    3778549.71        0.02086                    369608.62    3778540.93        0.02268
         369491.97    3778688.07        0.00355                    369551.43    3778498.04        0.02425
         369467.11    3778588.61        0.00541                    369442.24    3778525.50        0.00563
         369426.94    3778653.64        0.00333                    369430.77    3778596.26        0.00415
         369384.87    3778676.59        0.00251                    369398.26    3778498.73        0.00383
         369245.26    3778531.24        0.00166                    369245.26    3778441.35        0.00133
         369484.59    3778462.33        0.00820                    369629.21    3778438.68        0.00000
         369814.80    3778308.83        0.00633                    369781.29    3778368.86        0.00961
         369811.05    3778376.63        0.00763                    369852.96    3778354.56        0.00576
         369860.75    3778292.26        0.00484                    369856.21    3778259.16        0.00432
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure PM2.5                                              ***        14:16:07
                                                                                                                       PAGE  11
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   3 YEARS ***


                                    ** CONC OF PM_2.5   IN MICROGRAMS/M**3                      **

                                                                                                          NETWORK
GROUP ID                       AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PM2.5     1ST HIGHEST VALUE IS      0.03324 AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC
          2ND HIGHEST VALUE IS      0.02425 AT (  369551.43,  3778498.04,   235.98,   365.00,    0.00)  DC
          3RD HIGHEST VALUE IS      0.02268 AT (  369608.62,  3778540.93,   226.55,   365.00,    0.00)  DC
          4TH HIGHEST VALUE IS      0.02086 AT (  369621.84,  3778549.71,   224.96,   365.00,    0.00)  DC
          5TH HIGHEST VALUE IS      0.01623 AT (  369701.74,  3778534.95,   224.77,   365.00,    0.00)  DC
          6TH HIGHEST VALUE IS      0.01559 AT (  369686.20,  3778352.98,   240.37,   365.00,    0.00)  DC
          7TH HIGHEST VALUE IS      0.01390 AT (  369684.96,  3778565.24,   221.28,   365.00,    0.00)  DC
          8TH HIGHEST VALUE IS      0.01135 AT (  369709.39,  3778565.24,   220.76,   365.00,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00961 AT (  369781.29,  3778368.86,   239.64,   365.00,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00904 AT (  369733.82,  3778565.24,   220.34,   365.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS      0.03324 AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC
          2ND HIGHEST VALUE IS      0.02425 AT (  369551.43,  3778498.04,   235.98,   365.00,    0.00)  DC
          3RD HIGHEST VALUE IS      0.02268 AT (  369608.62,  3778540.93,   226.55,   365.00,    0.00)  DC
          4TH HIGHEST VALUE IS      0.02086 AT (  369621.84,  3778549.71,   224.96,   365.00,    0.00)  DC
          5TH HIGHEST VALUE IS      0.01623 AT (  369701.74,  3778534.95,   224.77,   365.00,    0.00)  DC
          6TH HIGHEST VALUE IS      0.01559 AT (  369686.20,  3778352.98,   240.37,   365.00,    0.00)  DC
          7TH HIGHEST VALUE IS      0.01390 AT (  369684.96,  3778565.24,   221.28,   365.00,    0.00)  DC
          8TH HIGHEST VALUE IS      0.01135 AT (  369709.39,  3778565.24,   220.76,   365.00,    0.00)  DC
          9TH HIGHEST VALUE IS      0.00961 AT (  369781.29,  3778368.86,   239.64,   365.00,    0.00)  DC
         10TH HIGHEST VALUE IS      0.00904 AT (  369733.82,  3778565.24,   220.34,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure PM2.5                                              ***        14:16:07
                                                                                                                       PAGE  12
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of          154 Informational Message(s)

 A Total of        26280 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          154 Missing Hours Identified (  0.59 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions – NO_2

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 7.5.0
** Lakes Environmental Software Inc.
** Date: 10/25/2012
** File: J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\Construction\AERMOD\Operational\Parking NO2\Parking NO2.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE Harvard Westlake Upper School Parking Infrastructure Project
   TITLETWO Parking Structure Localized NO2
   MODELOPT DFAULT CONC
   AVERTIME 1
   URBANOPT 9862049
   POLLUTID NO2
   FLAGPOLE 0.00
   RUNORNOT RUN
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOLGROUND    VOLUME     369629.448  3778438.707      235.710
** DESCRSRC Ground Level
   LOCATION VOLSECOND    VOLUME     369629.448  3778438.707      235.710
** DESCRSRC Second Floor
   LOCATION VOLTHIRD     VOLUME     369629.448  3778438.707      235.710
** DESCRSRC Third Floor
** Source Parameters **
   SRCPARAM VOLGROUND     0.003161     4.600     8.683     2.127
   SRCPARAM VOLSECOND     0.004824     9.200     8.683     4.279
   SRCPARAM VOLTHIRD      0.004342    13.800     8.683     6.419
   URBANSRC VOLGROUND
   URBANSRC VOLSECOND
   URBANSRC VOLTHIRD

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "NO2"
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   CONCUNIT 531.5 GRAMS/SEC PPM
   SRCGROUP NO2      VOLGROUND VOLSECOND VOLTHIRD
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "Parking NO2.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC"
   PROFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL"
   SURFDATA 0 2005
   UAIRDATA 3190 2005
   PROFBASE 0.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "PARKING NO2.AD\01H1GALL.PLT"
   PLOTFILE 1 NO2 1ST "PARKING NO2.AD\01H1G001.PLT"
   SUMMFILE "Parking NO2.sum"
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure Localized NO2                                       ***        14:38:45
                                                                                                                       PAGE   1
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL
```

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions – NO_2

```
                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Model Is Setup For Calculation of Average CONCentration Values.

  --  DEPOSITION LOGIC  --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
**Model Uses NO WET DEPLETION.  WETDPLT  =  F

**Model Uses URBAN Dispersion Algorithm for the SBL for     3 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

**Model Uses Regulatory DEFAULT Options:
       1. Stack-tip Downwash.
       2. Model Accounts for ELEVated Terrain Effects.
       3. Use Calms Processing Routine.
       4. Use Missing Data Processing Routine.
       5. No Exponential Decay for URBAN/Non-SO2.
       6. Full Conversion Assumed for NO2.
       7. Urban Roughness Length of 1.0 Meter Assumed.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates  1 Short Term Average(s) of:   1-HR

**This Run Includes:      3 Source(s);       2 Source Group(s); and      70 Receptor(s)

**The Model Assumes A Pollutant Type of:  NO2

**Note that special processing requirements apply for the 1-hour NO2 NAAQS - check available guidance.
  Model will process user-specified ranks of daily maximum 1-hour values averaged across the number of years modeled.
  For annual NO2 NAAQS modeling, the multi-year maximum of PERIOD values can be simulated using the MULTYEAR keyword.
  Multi-year PERIOD and 1-hour values should only be done in a single model run using the MULTYEAR option with a
  single multi-year meteorological data file using STARTEND keyword.

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         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) =     0.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                           ;  Emission Rate Unit Factor =    531.50
                 Output Units   = PPM

**Approximate Storage Requirements of Model =      3.5 MB of RAM.

**File for Summary of Results:   Parking NO2.sum
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure Localized NO2                                      ***        14:38:45
                                                                                                                      PAGE   2
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                                             *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE      PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

VOLGROUND        0   0.31610E-02  369629.4 3778438.7   235.7     4.60     8.68     2.13     YES   HROFDY
VOLSECOND        0   0.48240E-02  369629.4 3778438.7   235.7     9.20     8.68     4.28     YES   HROFDY
VOLTHIRD         0   0.43420E-02  369629.4 3778438.7   235.7    13.80     8.68     6.42     YES   HROFDY
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure Localized NO2                                      ***        14:38:45
                                                                                                                      PAGE   3
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID                                              SOURCE IDs


 NO2       VOLGROUND   , VOLSECOND   , VOLTHIRD    ,


 ALL       VOLGROUND   , VOLSECOND   , VOLTHIRD    ,
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure Localized NO2                                      ***        14:38:45
                                                                                                                      PAGE   4
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = VOLGROUND    ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOLSECOND    ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
```

```
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


 SOURCE ID = VOLTHIRD     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure Localized NO2                                      ***        14:38:45
                                                                                                                       PAGE   5
 **MODELOPTs:  RegDFAULT CONC                                               ELEV      FLGPOL


                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)

     ( 369670.5, 3778388.3,     238.9,     365.0,       0.0);        ( 369686.2, 3778353.0,     240.4,     365.0,       0.0);
     ( 369701.7, 3778534.9,     224.8,     365.0,       0.0);        ( 369685.0, 3778565.2,     221.3,     365.0,       0.0);
     ( 369709.4, 3778565.2,     220.8,     365.0,       0.0);        ( 369733.8, 3778565.2,     220.3,     365.0,       0.0);
     ( 369760.4, 3778565.2,     219.9,     365.0,       0.0);        ( 369685.0, 3778627.6,     216.1,     365.0,       0.0);
     ( 369709.4, 3778627.6,     215.9,     365.0,       0.0);        ( 369733.8, 3778627.6,     215.7,     365.0,       0.0);
     ( 369760.4, 3778627.6,     215.5,     365.0,       0.0);        ( 369684.6, 3778740.8,     212.4,     365.0,       0.0);
     ( 369709.0, 3778740.8,     212.3,     365.0,       0.0);        ( 369733.4, 3778740.8,     212.3,     365.0,       0.0);
     ( 369760.0, 3778740.8,     212.3,     365.0,       0.0);        ( 369684.6, 3778685.5,     212.9,     365.0,       0.0);
     ( 369709.0, 3778685.5,     212.9,     365.0,       0.0);        ( 369733.5, 3778685.5,     212.9,     365.0,       0.0);
     ( 369760.1, 3778685.5,     212.9,     365.0,       0.0);        ( 369810.6, 3778741.3,     212.1,     365.0,       0.0);
     ( 369828.2, 3778628.6,     214.6,     365.0,       0.0);        ( 369867.0, 3778658.0,     212.8,     365.0,       0.0);
     ( 369904.5, 3778679.1,     212.0,     365.0,       0.0);        ( 369858.7, 3778708.4,     212.0,     365.0,       0.0);
     ( 369905.7, 3778639.1,     214.2,     365.0,       0.0);        ( 369885.8, 3778619.1,     215.4,     365.0,       0.0);
     ( 369638.6, 3778030.1,     269.3,     365.0,       0.0);        ( 369698.0, 3778231.8,     243.0,     365.0,       0.0);
     ( 369682.8, 3778161.3,     247.8,     365.0,       0.0);        ( 369653.8, 3778099.1,     252.5,     365.0,       0.0);
     ( 369666.2, 3778059.1,     259.1,     365.0,       0.0);        ( 369722.9, 3778230.4,     242.9,     365.0,       0.0);
     ( 369716.0, 3778190.3,     244.4,     365.0,       0.0);        ( 369703.6, 3778158.6,     247.2,     365.0,       0.0);
     ( 369687.0, 3778126.8,     251.1,     365.0,       0.0);        ( 369675.9, 3778097.8,     253.5,     365.0,       0.0);
     ( 369703.6, 3778108.8,     251.0,     365.0,       0.0);        ( 369727.0, 3778139.2,     247.0,     365.0,       0.0);
     ( 369903.9, 3778552.4,     223.0,     365.0,       0.0);        ( 369866.6, 3778563.4,     219.9,     365.0,       0.0);
     ( 369873.5, 3778516.4,     227.5,     365.0,       0.0);        ( 369887.3, 3778491.6,     232.5,     304.0,       0.0);
     ( 369859.7, 3778444.6,     236.3,     304.0,       0.0);        ( 369849.6, 3778322.0,     243.9,     365.0,       0.0);
     ( 369643.4, 3778672.5,     213.2,     365.0,       0.0);        ( 369644.1, 3778798.3,     212.1,     365.0,       0.0);
     ( 369591.6, 3778750.0,     213.4,     365.0,       0.0);        ( 369640.0, 3778638.0,     216.2,     365.0,       0.0);
     ( 369590.3, 3778698.8,     214.8,     365.0,       0.0);        ( 369569.5, 3778751.3,     213.8,     365.0,       0.0);
     ( 369621.8, 3778549.7,     225.0,     365.0,       0.0);        ( 369608.6, 3778540.9,     226.6,     365.0,       0.0);
     ( 369492.0, 3778688.1,     228.6,     365.0,       0.0);        ( 369551.4, 3778498.0,     236.0,     365.0,       0.0);
     ( 369467.1, 3778588.6,     240.7,     365.0,       0.0);        ( 369442.2, 3778525.5,     243.2,     365.0,       0.0);
     ( 369426.9, 3778653.6,     236.6,     365.0,       0.0);        ( 369430.8, 3778596.3,     241.5,     365.0,       0.0);
     ( 369384.9, 3778676.6,     233.1,     365.0,       0.0);        ( 369398.3, 3778498.7,     243.2,     365.0,       0.0);
     ( 369245.3, 3778531.2,     233.6,     365.0,       0.0);        ( 369245.3, 3778441.3,     240.3,     365.0,       0.0);
     ( 369484.6, 3778462.3,     244.4,     365.0,       0.0);        ( 369629.2, 3778438.7,     235.7,     365.0,      17.4);
     ( 369814.8, 3778308.8,     242.5,     365.0,       0.0);        ( 369781.3, 3778368.9,     239.6,     365.0,       0.0);
     ( 369811.0, 3778376.6,     240.3,     365.0,       0.0);        ( 369853.0, 3778354.6,     243.2,     304.0,       0.0);
     ( 369860.8, 3778292.3,     246.5,     304.0,       0.0);        ( 369856.2, 3778259.2,     245.7,     365.0,       0.0);
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure Localized NO2                                      ***        14:38:45
                                                                                                                       PAGE   6
 **MODELOPTs:  RegDFAULT CONC                                               ELEV      FLGPOL


                        * 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)
                              - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

                               VOLGROUND           369629.2     3778438.7           -18.43
                               VOLSECOND           369629.2     3778438.7           -18.43
                               VOLTHIRD            369629.2     3778438.7           -18.43
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure Localized NO2                                      ***        14:38:45
                                                                                                                       PAGE   7
 **MODELOPTs:  RegDFAULT CONC                                               ELEV      FLGPOL


                                            *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                               (1=YES; 0=NO)

              1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

                    NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                          (METERS/SEC)

                                                1.54,   3.09,   5.14,   8.23,  10.80,
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure Localized NO2                                      ***        14:38:45
                                                                                                                       PAGE   8
 **MODELOPTs:  RegDFAULT CONC                                               ELEV      FLGPOL


                                        *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC   Met Version:  11059
   Profile file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:        0                  Upper air station no.:     3190
                Name: UNKNOWN                                    Name: UNKNOWN
```

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions – NO_2

Year: 2005 Year: 2005

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
05	01	01	1	01	-1.5	0.047	-9.000	-9.000	-999.	24.	6.3	0.63	1.00	1.00	0.70	285.	12.2	279.9	8.5
05	01	01	1	02	-1.7	0.054	-9.000	-9.000	-999.	29.	8.3	0.63	1.00	1.00	0.80	278.	12.2	279.9	8.5
05	01	01	1	03	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	335.	12.2	279.2	8.5
05	01	01	1	04	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	291.	12.2	278.8	8.5
05	01	01	1	05	-2.1	0.061	-9.000	-9.000	-999.	34.	9.4	0.63	1.00	1.00	0.90	334.	12.2	278.1	8.5
05	01	01	1	06	-0.9	0.040	-9.000	-9.000	-999.	19.	6.2	0.63	1.00	1.00	0.60	309.	12.2	278.8	8.5
05	01	01	1	07	-1.3	0.047	-9.000	-9.000	-999.	24.	7.3	0.63	1.00	1.00	0.70	312.	12.2	278.8	8.5
05	01	01	1	08	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	0.56	0.60	256.	12.2	279.2	8.5
05	01	01	1	09	20.5	0.177	0.303	0.005	48.	171.	-23.9	0.63	1.00	0.33	1.00	298.	12.2	282.5	8.5
05	01	01	1	10	52.6	0.184	1.005	0.005	684.	181.	-10.4	0.63	1.00	0.25	0.90	103.	12.2	286.4	8.5
05	01	01	1	11	109.2	0.376	1.415	0.006	920.	529.	-42.9	0.63	1.00	0.22	2.30	136.	12.2	287.0	8.5
05	01	01	1	12	27.8	0.303	0.917	0.007	980.	386.	-88.5	0.63	1.00	0.21	2.00	152.	12.2	287.0	8.5
05	01	01	1	13	27.2	0.255	0.927	0.007	1037.	297.	-53.9	0.63	1.00	0.21	1.60	187.	12.2	285.9	8.5
05	01	01	1	14	22.9	0.227	0.899	0.008	1123.	249.	-45.2	0.63	1.00	0.22	1.40	156.	12.2	287.0	8.5
05	01	01	1	15	13.9	0.218	0.774	0.009	1179.	234.	-66.0	0.63	1.00	0.26	1.40	192.	12.2	286.4	8.5
05	01	01	1	16	1.5	0.234	0.373	0.009	1183.	260.	-729.3	0.63	1.00	0.34	1.70	188.	12.2	285.9	8.5
05	01	01	1	17	-3.6	0.088	-9.000	-9.000	-999.	77.	16.6	0.63	1.00	0.61	1.30	200.	12.2	285.4	8.5
05	01	01	1	18	-1.8	0.061	-9.000	-9.000	-999.	34.	11.0	0.63	1.00	1.00	0.90	162.	12.2	284.9	8.5
05	01	01	1	19	-1.1	0.047	-9.000	-9.000	-999.	24.	8.6	0.63	1.00	1.00	0.70	176.	12.2	284.9	8.5
05	01	01	1	20	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	210.	12.2	284.2	8.5
05	01	01	1	21	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	236.	12.2	284.2	8.5
05	01	01	1	22	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	272.	12.2	283.8	8.5
05	01	01	1	23	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	251.	12.2	283.1	8.5
05	01	01	1	24	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	301.	12.2	282.5	8.5

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
05	01	01	01	8.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
05	01	01	01	12.2	1	285.	0.70	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST-HIGHEST MAX DAILY 1-HR AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: NO2 ***
INCLUDING SOURCE(S): VOLGROUND , VOLSECOND , VOLTHIRD ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NO2 IN PPM **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
369670.52	3778388.27	0.00265	369686.20	3778352.98	0.00189
369701.74	3778534.95	0.00117	369684.96	3778565.24	0.00095
369709.39	3778565.24	0.00095	369733.82	3778565.24	0.00078
369760.43	3778565.24	0.00068	369684.96	3778627.64	0.00055
369709.39	3778627.64	0.00058	369733.82	3778627.64	0.00060
369760.43	3778627.64	0.00056	369684.56	3778740.79	0.00032
369708.99	3778740.79	0.00030	369733.42	3778740.79	0.00030
369760.02	3778740.79	0.00031	369684.59	3778685.54	0.00040
369709.02	3778685.54	0.00039	369733.45	3778685.54	0.00041
369760.06	3778685.54	0.00043	369810.59	3778741.35	0.00033
369828.20	3778628.60	0.00041	369866.96	3778657.96	0.00033
369904.54	3778679.10	0.00028	369858.74	3778708.37	0.00030
369905.71	3778639.08	0.00030	369885.75	3778619.11	0.00034
369638.62	3778030.06	0.00041	369698.03	3778231.80	0.00106
369682.83	3778161.33	0.00079	369653.81	3778099.15	0.00061
369666.25	3778059.08	0.00049	369722.90	3778230.42	0.00102
369715.99	3778190.35	0.00089	369703.56	3778158.57	0.00083
369686.98	3778126.79	0.00069	369675.92	3778097.77	0.00060
369703.56	3778108.82	0.00069	369727.05	3778139.22	0.00076
369903.91	3778552.37	0.00040	369866.61	3778563.43	0.00043
369873.52	3778516.45	0.00051	369887.33	3778491.57	0.00054
369859.70	3778444.59	0.00068	369849.63	3778322.03	0.00099
369643.37	3778672.46	0.00044	369644.15	3778798.32	0.00025
369591.64	3778749.96	0.00027	369640.00	3778638.03	0.00054
369590.26	3778698.83	0.00035	369569.53	3778751.34	0.00029
369621.84	3778549.71	0.00114	369608.62	3778540.93	0.00117
369491.97	3778688.07	0.00039	369551.43	3778498.04	0.00202
369467.11	3778588.61	0.00087	369442.24	3778525.50	0.00130
369426.94	3778653.64	0.00045	369430.77	3778596.26	0.00085
369384.87	3778676.59	0.00035	369398.26	3778498.73	0.00101
369245.26	3778531.24	0.00038	369245.26	3778441.35	0.00040
369484.59	3778462.33	0.00165	369629.21	3778438.68	0.00000
369814.80	3778308.83	0.00106	369781.29	3778368.86	0.00115
369811.05	3778376.63	0.00101	369852.96	3778354.56	0.00103
369860.75	3778292.26	0.00096	369856.21	3778259.16	0.00088

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST-HIGHEST MAX DAILY 1-HR AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOLGROUND , VOLSECOND , VOLTHIRD ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NO2 IN PPM **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
369670.52	3778388.27	0.00265	369686.20	3778352.98	0.00189
369701.74	3778534.95	0.00117	369684.96	3778565.24	0.00095
369709.39	3778565.24	0.00095	369733.82	3778565.24	0.00078
369760.43	3778565.24	0.00068	369684.96	3778627.64	0.00055
369709.39	3778627.64	0.00058	369733.82	3778627.64	0.00060
369760.43	3778627.64	0.00056	369684.56	3778740.79	0.00032
369708.99	3778740.79	0.00030	369733.42	3778740.79	0.00030
369760.02	3778740.79	0.00031	369684.59	3778685.54	0.00040
369709.02	3778685.54	0.00039	369733.45	3778685.54	0.00041
369760.06	3778685.54	0.00043	369810.59	3778741.35	0.00033
369828.20	3778628.60	0.00041	369866.96	3778657.96	0.00033

```
        369904.54    3778679.10        0.00028                    369858.74    3778708.37        0.00030
        369905.71    3778639.08        0.00030                    369885.75    3778619.11        0.00034
        369638.62    3778030.06        0.00041                    369698.03    3778231.80        0.00106
        369682.83    3778161.33        0.00079                    369653.81    3778099.15        0.00061
        369666.25    3778059.08        0.00049                    369722.90    3778230.42        0.00102
        369715.99    3778190.35        0.00089                    369703.56    3778158.57        0.00083
        369686.98    3778126.79        0.00069                    369675.92    3778097.77        0.00060
        369703.56    3778108.82        0.00069                    369727.05    3778139.22        0.00076
        369903.91    3778552.37        0.00040                    369866.61    3778563.43        0.00043
        369873.52    3778516.45        0.00051                    369887.33    3778491.57        0.00054
        369859.70    3778444.59        0.00068                    369849.63    3778322.03        0.00099
        369643.37    3778672.46        0.00044                    369644.15    3778798.32        0.00025
        369591.64    3778749.96        0.00027                    369640.00    3778638.03        0.00054
        369590.26    3778698.83        0.00035                    369569.53    3778751.34        0.00029
        369621.84    3778549.71        0.00114                    369608.62    3778540.93        0.00117
        369491.97    3778688.07        0.00039                    369551.43    3778498.04        0.00202
        369467.11    3778588.61        0.00087                    369442.24    3778525.50        0.00130
        369426.94    3778653.64        0.00045                    369430.77    3778596.26        0.00085
        369384.87    3778676.59        0.00035                    369398.26    3778498.73        0.00101
        369245.26    3778531.24        0.00038                    369245.26    3778441.35        0.00040
        369484.59    3778462.33        0.00165                    369629.21    3778438.68        0.00000
        369814.80    3778308.83        0.00106                    369781.29    3778368.86        0.00115
        369811.05    3778376.63        0.00101                    369852.96    3778354.56        0.00103
        369860.75    3778292.26        0.00096                    369856.21    3778259.16        0.00088
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure Localized NO2                                      ***        14:38:45
                                                                                                                       PAGE  11
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                     *** THE SUMMARY OF MAXIMUM   1ST-HIGHEST MAX DAILY  1-HR RESULTS AVERAGED OVER   3 YEARS ***


                                  ** CONC OF NO2      IN PPM                                 **

                                                                                                          NETWORK
GROUP ID                      AVERAGE CONC               RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

NO2       1ST HIGHEST VALUE IS       0.00265 AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00202 AT (  369551.43,  3778498.04,   235.98,   365.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00189 AT (  369686.20,  3778352.98,   240.37,   365.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00165 AT (  369484.59,  3778462.33,   244.44,   365.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00130 AT (  369442.24,  3778525.50,   243.21,   365.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00117 AT (  369608.62,  3778540.93,   226.55,   365.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00117 AT (  369701.74,  3778534.95,   224.77,   365.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00115 AT (  369781.29,  3778368.86,   239.64,   365.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00114 AT (  369621.84,  3778549.71,   224.96,   365.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00106 AT (  369698.03,  3778231.80,   242.97,   365.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS       0.00265 AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00202 AT (  369551.43,  3778498.04,   235.98,   365.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00189 AT (  369686.20,  3778352.98,   240.37,   365.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00165 AT (  369484.59,  3778462.33,   244.44,   365.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00130 AT (  369442.24,  3778525.50,   243.21,   365.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00117 AT (  369608.62,  3778540.93,   226.55,   365.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00117 AT (  369701.74,  3778534.95,   224.77,   365.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00115 AT (  369781.29,  3778368.86,   239.64,   365.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00114 AT (  369621.84,  3778549.71,   224.96,   365.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00106 AT (  369698.03,  3778231.80,   242.97,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure Localized NO2                                      ***        14:38:45
                                                                                                                       PAGE  12
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of          154 Informational Message(s)

 A Total of        26280 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          154 Missing Hours Identified (  0.59 Percent)


    ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions - CO

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 7.5.0
** Lakes Environmental Software Inc.
** Date: 10/25/2012
** File: J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\Construction\AERMOD\Operational\Parking CO\Parking CO.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE Harvard Westlake Upper School Parking Infrastructure Project
   TITLETWO Parking Structure CO
   MODELOPT DFAULT CONC
   AVERTIME 1 8
   URBANOPT 9862049
   POLLUTID CO
   FLAGPOLE 0.00
   RUNORNOT RUN
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOLGROUND    VOLUME     369629.448  3778438.707      235.710
** DESCRSRC Ground Level
   LOCATION VOLSECOND    VOLUME     369629.448  3778438.707      235.710
** DESCRSRC Second Floor
   LOCATION VOLTHIRD     VOLUME     369629.448  3778438.707      235.710
** DESCRSRC Third Floor
** Source Parameters **
   SRCPARAM VOLGROUND     0.419666     4.600     8.683     2.127
   SRCPARAM VOLSECOND     0.640543     9.200     8.683     4.279
   SRCPARAM VOLTHIRD      0.576489    13.800     8.683     6.419
   URBANSRC VOLGROUND
   URBANSRC VOLSECOND
   URBANSRC VOLTHIRD

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "CO"
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLGROUND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLSECOND    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT VOLTHIRD     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   CONCUNIT 873.2 GRAMS/SEC PPM
   SRCGROUP CO       VOLGROUND VOLSECOND VOLTHIRD
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "Parking CO.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC"
   PROFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL"
   SURFDATA 0 2005
   UAIRDATA 3190 2005
   PROFBASE 0.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "PARKING CO.AD\01H1GALL.PLT"
   PLOTFILE 8 ALL 1ST "PARKING CO.AD\08H1GALL.PLT"
   PLOTFILE 1 CO 1ST "PARKING CO.AD\01H1G001.PLT"
   PLOTFILE 8 CO 1ST "PARKING CO.AD\08H1G001.PLT"
   SUMMFILE "Parking CO.sum"
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************

 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
```

Harvard-Westlake School Parking Structure Project
Parking Structure Emissions - CO

```
                                  *** Parking Structure CO                                                       ***        14:26:12
                                                                                                                            PAGE   1
**MODELOPTs:  RegDFAULT CONC                                                   ELEV      FLGPOL


                                           ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Model Is Setup For Calculation of Average CONCentration Values.

  --  DEPOSITION LOGIC  --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
**Model Uses NO WET DEPLETION.  WETDPLT  =  F

**Model Uses URBAN Dispersion Algorithm for the SBL for     3 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

**Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay for URBAN/Non-SO2.
        6. Urban Roughness Length of 1.0 Meter Assumed.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates  2 Short Term Average(s) of:   1-HR   8-HR

**This Run Includes:      3 Source(s);       2 Source Group(s); and      70 Receptor(s)

**The Model Assumes A Pollutant Type of:  CO

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         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) =      0.00 ;  Decay Coef. =    0.000     ; Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                  ;  Emission Rate Unit Factor =    873.20
                 Output Units   = PPM

**Approximate Storage Requirements of Model =      3.5 MB of RAM.

**File for Summary of Results:   Parking CO.sum
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure CO                                                 ***        14:26:12
                                                                                                                      PAGE   2
**MODELOPTs:  RegDFAULT CONC                                                   ELEV      FLGPOL


                                                      *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

VOLGROUND        0   0.41967E+00  369629.4 3778438.7   235.7     4.60     8.68     2.13     YES   HROFDY
VOLSECOND        0   0.64054E+00  369629.4 3778438.7   235.7     9.20     8.68     4.28     YES   HROFDY
VOLTHIRD         0   0.57649E+00  369629.4 3778438.7   235.7    13.80     8.68     6.42     YES   HROFDY
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure CO                                                 ***        14:26:12
                                                                                                                      PAGE   3
**MODELOPTs:  RegDFAULT CONC                                                   ELEV      FLGPOL



                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID                                                SOURCE IDs



 CO        VOLGROUND   , VOLSECOND   , VOLTHIRD    ,


 ALL       VOLGROUND   , VOLSECOND   , VOLTHIRD    ,
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Parking Structure CO                                                 ***        14:26:12
                                                                                                                      PAGE   4
**MODELOPTs:  RegDFAULT CONC                                                   ELEV      FLGPOL

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = VOLGROUND    ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOLSECOND    ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = VOLTHIRD     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
       7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
      13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure CO                                                 ***        14:26:12
                                                                                                                       PAGE   5
 **MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)

     ( 369670.5, 3778388.3,     238.9,     365.0,       0.0);        ( 369686.2, 3778353.0,     240.4,     365.0,       0.0);
     ( 369701.7, 3778534.9,     224.8,     365.0,       0.0);        ( 369685.0, 3778565.2,     221.3,     365.0,       0.0);
     ( 369709.4, 3778565.2,     220.8,     365.0,       0.0);        ( 369733.8, 3778565.2,     220.3,     365.0,       0.0);
     ( 369760.4, 3778565.2,     219.9,     365.0,       0.0);        ( 369685.0, 3778627.6,     216.1,     365.0,       0.0);
     ( 369709.4, 3778627.6,     215.9,     365.0,       0.0);        ( 369733.8, 3778627.6,     215.7,     365.0,       0.0);
     ( 369760.4, 3778627.6,     215.5,     365.0,       0.0);        ( 369684.6, 3778740.8,     212.4,     365.0,       0.0);
     ( 369709.0, 3778740.8,     212.3,     365.0,       0.0);        ( 369733.4, 3778740.8,     212.3,     365.0,       0.0);
     ( 369760.0, 3778740.8,     212.3,     365.0,       0.0);        ( 369684.6, 3778685.5,     212.9,     365.0,       0.0);
     ( 369709.0, 3778685.5,     212.9,     365.0,       0.0);        ( 369733.5, 3778685.5,     212.9,     365.0,       0.0);
     ( 369760.1, 3778685.5,     212.9,     365.0,       0.0);        ( 369810.6, 3778741.3,     212.1,     365.0,       0.0);
     ( 369828.2, 3778628.6,     214.6,     365.0,       0.0);        ( 369867.0, 3778658.0,     212.8,     365.0,       0.0);
     ( 369904.5, 3778679.1,     212.0,     365.0,       0.0);        ( 369858.7, 3778708.4,     212.0,     365.0,       0.0);
     ( 369905.7, 3778639.1,     214.2,     365.0,       0.0);        ( 369885.8, 3778619.1,     215.4,     365.0,       0.0);
     ( 369638.6, 3778030.1,     269.3,     365.0,       0.0);        ( 369698.0, 3778231.8,     243.0,     365.0,       0.0);
     ( 369682.8, 3778161.3,     247.8,     365.0,       0.0);        ( 369653.8, 3778099.1,     252.5,     365.0,       0.0);
     ( 369666.2, 3778059.1,     259.1,     365.0,       0.0);        ( 369722.9, 3778230.4,     242.9,     365.0,       0.0);
     ( 369716.0, 3778190.3,     244.4,     365.0,       0.0);        ( 369703.6, 3778158.6,     247.2,     365.0,       0.0);
     ( 369687.0, 3778126.8,     251.1,     365.0,       0.0);        ( 369675.9, 3778097.8,     253.5,     365.0,       0.0);
     ( 369703.6, 3778108.8,     251.0,     365.0,       0.0);        ( 369727.0, 3778139.2,     247.0,     365.0,       0.0);
     ( 369903.9, 3778552.4,     223.0,     365.0,       0.0);        ( 369866.6, 3778563.4,     219.9,     365.0,       0.0);
     ( 369873.5, 3778516.4,     227.5,     365.0,       0.0);        ( 369887.3, 3778491.6,     232.5,     304.0,       0.0);
     ( 369859.7, 3778444.6,     236.3,     304.0,       0.0);        ( 369849.6, 3778322.0,     243.9,     365.0,       0.0);
     ( 369643.4, 3778672.5,     213.2,     365.0,       0.0);        ( 369644.1, 3778798.3,     212.1,     365.0,       0.0);
     ( 369591.6, 3778750.0,     213.4,     365.0,       0.0);        ( 369640.0, 3778638.0,     216.2,     365.0,       0.0);
     ( 369590.3, 3778698.8,     214.8,     365.0,       0.0);        ( 369569.5, 3778751.3,     213.8,     365.0,       0.0);
     ( 369621.8, 3778549.7,     225.0,     365.0,       0.0);        ( 369608.6, 3778540.9,     226.6,     365.0,       0.0);
     ( 369492.0, 3778688.1,     228.6,     365.0,       0.0);        ( 369551.4, 3778498.0,     236.0,     365.0,       0.0);
     ( 369467.1, 3778588.6,     240.7,     365.0,       0.0);        ( 369442.2, 3778525.5,     243.2,     365.0,       0.0);
     ( 369426.9, 3778653.6,     236.6,     365.0,       0.0);        ( 369430.8, 3778596.3,     241.5,     365.0,       0.0);
     ( 369384.9, 3778676.6,     233.1,     365.0,       0.0);        ( 369398.3, 3778498.7,     243.2,     365.0,       0.0);
     ( 369245.3, 3778531.2,     233.6,     365.0,       0.0);        ( 369245.3, 3778441.3,     240.3,     365.0,       0.0);
     ( 369484.6, 3778462.3,     244.4,     365.0,       0.0);        ( 369629.2, 3778438.7,     235.7,     365.0,      17.4);
     ( 369814.8, 3778308.8,     242.5,     365.0,       0.0);        ( 369781.3, 3778368.9,     239.6,     365.0,       0.0);
     ( 369811.0, 3778376.6,     240.3,     365.0,       0.0);        ( 369853.0, 3778354.6,     243.2,     304.0,       0.0);
     ( 369860.8, 3778292.3,     246.5,     304.0,       0.0);        ( 369856.2, 3778259.2,     245.7,     365.0,       0.0);
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure CO                                                 ***        14:26:12
                                                                                                                       PAGE   6
 **MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                        * 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)
                                - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

                                 VOLGROUND           369629.2     3778438.7           -18.43
                                 VOLSECOND           369629.2     3778438.7           -18.43
                                 VOLTHIRD            369629.2     3778438.7           -18.43
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure CO                                                 ***        14:26:12
                                                                                                                       PAGE   7
 **MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                                            *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                           (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

                    NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                           (METERS/SEC)

                                               1.54,   3.09,   5.14,   8.23,  10.80,
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure CO                                                 ***        14:26:12
                                                                                                                       PAGE   8
 **MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC   Met Version:  11059
   Profile file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:        0                  Upper air station no.:     3190
                  Name: UNKNOWN                                   Name: UNKNOWN
                  Year:   2005                                    Year:   2005

 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
```

05 01 01	1 01	-1.5	0.047	-9.000	-9.000	-999.	24.	6.3	0.63	1.00	1.00	0.70	285.	12.2	279.9	8.5
05 01 01	1 02	-1.7	0.054	-9.000	-9.000	-999.	29.	8.3	0.63	1.00	1.00	0.80	278.	12.2	279.9	8.5
05 01 01	1 03	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	335.	12.2	279.2	8.5
05 01 01	1 04	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	291.	12.2	278.8	8.5
05 01 01	1 05	-2.1	0.061	-9.000	-9.000	-999.	34.	9.4	0.63	1.00	1.00	0.90	334.	12.2	278.1	8.5
05 01 01	1 06	-0.9	0.040	-9.000	-9.000	-999.	19.	6.2	0.63	1.00	1.00	0.60	309.	12.2	278.8	8.5
05 01 01	1 07	-1.3	0.047	-9.000	-9.000	-999.	24.	7.3	0.63	1.00	1.00	0.70	312.	12.2	278.8	8.5
05 01 01	1 08	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	0.56	0.60	256.	12.2	279.2	8.5
05 01 01	1 09	20.5	0.177	0.303	0.005	48.	171.	-23.9	0.63	1.00	0.33	1.00	298.	12.2	282.5	8.5
05 01 01	1 10	52.6	0.184	1.005	0.005	684.	181.	-10.4	0.63	1.00	0.25	0.90	103.	12.2	286.4	8.5
05 01 01	1 11	109.2	0.376	1.415	0.006	920.	529.	-42.9	0.63	1.00	0.22	2.30	136.	12.2	287.0	8.5
05 01 01	1 12	27.8	0.303	0.917	0.007	980.	386.	-88.5	0.63	1.00	0.21	2.00	152.	12.2	287.0	8.5
05 01 01	1 13	27.2	0.255	0.927	0.007	1037.	297.	-53.9	0.63	1.00	0.21	1.60	187.	12.2	285.9	8.5
05 01 01	1 14	22.9	0.227	0.899	0.008	1123.	249.	-45.2	0.63	1.00	0.22	1.40	156.	12.2	287.0	8.5
05 01 01	1 15	13.9	0.218	0.774	0.009	1179.	234.	-66.0	0.63	1.00	0.26	1.40	192.	12.2	286.4	8.5
05 01 01	1 16	1.5	0.234	0.373	0.009	1183.	260.	-729.3	0.63	1.00	0.34	1.70	188.	12.2	285.9	8.5
05 01 01	1 17	-3.6	0.088	-9.000	-9.000	-999.	77.	16.6	0.63	1.00	0.61	1.30	200.	12.2	285.4	8.5
05 01 01	1 18	-1.8	0.061	-9.000	-9.000	-999.	34.	11.0	0.63	1.00	1.00	0.90	162.	12.2	284.9	8.5
05 01 01	1 19	-1.1	0.047	-9.000	-9.000	-999.	24.	8.6	0.63	1.00	1.00	0.70	176.	12.2	284.9	8.5
05 01 01	1 20	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	210.	12.2	284.2	8.5
05 01 01	1 21	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	236.	12.2	284.2	8.5
05 01 01	1 22	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	272.	12.2	283.8	8.5
05 01 01	1 23	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	251.	12.2	283.1	8.5
05 01 01	1 24	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	301.	12.2	282.5	8.5

First hour of profile data

YR MO DY HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
05 01 01 01	8.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
05 01 01 01	12.2	1	285.	0.70	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Parking Structure CO *** 14:26:12
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CO ***
INCLUDING SOURCE(S): VOLGROUND , VOLSECOND , VOLTHIRD ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN PPM **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.58341	(07013008)	369686.20	3778352.98	0.42102	(05011208)
369701.74	3778534.95	0.29204	(07111108)	369684.96	3778565.24	0.26692	(07111108)
369709.39	3778565.24	0.25057	(07111108)	369733.82	3778565.24	0.17658	(07111108)
369760.43	3778565.24	0.14807	(06112808)	369684.96	3778627.64	0.14596	(07111808)
369709.39	3778627.64	0.16090	(07111808)	369733.82	3778627.64	0.16680	(07111108)
369760.43	3778627.64	0.13796	(07111108)	369684.56	3778740.79	0.07815	(07012808)
369708.99	3778740.79	0.07720	(05020708)	369733.42	3778740.79	0.08404	(07111808)
369760.02	3778740.79	0.08817	(07111808)	369684.59	3778685.54	0.09779	(05020708)
369709.02	3778685.54	0.10621	(07111808)	369733.45	3778685.54	0.11430	(07111808)
369760.06	3778685.54	0.12084	(07111108)	369810.59	3778741.35	0.08890	(07111108)
369828.20	3778628.60	0.09038	(06112808)	369866.96	3778657.96	0.07319	(06112808)
369904.54	3778679.10	0.06253	(07121108)	369858.74	3778708.37	0.06600	(06112308)
369905.71	3778639.08	0.07058	(07021408)	369885.75	3778619.11	0.07846	(07021408)
369638.62	3778030.06	0.13567	(06010508)	369698.03	3778231.80	0.24036	(07112508)
369682.83	3778161.33	0.21641	(06020508)	369653.81	3778099.15	0.17937	(06010508)
369666.25	3778059.08	0.14978	(06010508)	369722.90	3778230.42	0.23220	(05010408)
369715.99	3778190.35	0.20335	(07112508)	369703.56	3778158.57	0.19631	(06020508)
369686.98	3778126.79	0.20080	(06020508)	369675.92	3778097.77	0.17831	(06020508)
369703.56	3778108.82	0.18489	(06020508)	369727.05	3778139.22	0.17547	(07112508)
369903.91	3778552.37	0.08998	(05021108)	369866.61	3778563.43	0.09743	(05021308)
369873.52	3778516.45	0.11216	(06012608)	369887.33	3778491.57	0.11982	(05112908)
369859.70	3778444.59	0.14987	(06021308)	369849.63	3778322.03	0.22052	(06021208)
369643.37	3778672.46	0.10348	(06112408)	369644.15	3778798.32	0.06182	(06112408)
369591.64	3778749.96	0.07416	(06112408)	369640.00	3778638.03	0.12712	(06112408)
369590.26	3778698.83	0.09327	(06012708)	369569.53	3778751.34	0.07423	(06012708)
369621.84	3778549.71	0.28111	(07110816)	369608.62	3778540.93	0.27936	(07110816)
369491.97	3778688.07	0.09492	(07011508)	369551.43	3778498.04	0.61011	(07112008)
369467.11	3778588.61	0.21623	(07010208)	369442.24	3778525.50	0.34730	(07112008)
369426.94	3778653.64	0.11049	(06120908)	369430.77	3778596.26	0.20601	(07112008)
369384.87	3778676.59	0.08564	(07010208)	369398.26	3778498.73	0.29089	(07111708)
369245.26	3778531.24	0.11464	(07111708)	369245.26	3778441.35	0.09578	(06020208)
369484.59	3778462.33	0.44569	(07111708)	369629.21	3778438.68	0.00000	(00000000)
369814.80	3778308.83	0.23164	(05012608)	369781.29	3778368.86	0.25967	(05112208)
369811.05	3778376.63	0.22354	(05122308)	369852.96	3778354.56	0.22473	(05021208)
369860.75	3778292.26	0.21245	(06121308)	369856.21	3778259.16	0.19494	(05012208)

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Parking Structure CO *** 14:26:12
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOLGROUND , VOLSECOND , VOLTHIRD ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN PPM **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.58341	(07013008)	369686.20	3778352.98	0.42102	(05011208)
369701.74	3778534.95	0.29204	(07111108)	369684.96	3778565.24	0.26692	(07111108)
369709.39	3778565.24	0.25057	(07111108)	369733.82	3778565.24	0.17658	(07111108)
369760.43	3778565.24	0.14807	(06112808)	369684.96	3778627.64	0.14596	(07111808)
369709.39	3778627.64	0.16090	(07111808)	369733.82	3778627.64	0.16680	(07111108)
369760.43	3778627.64	0.13796	(07111108)	369684.56	3778740.79	0.07815	(07012808)
369708.99	3778740.79	0.07720	(05020708)	369733.42	3778740.79	0.08404	(07111808)
369760.02	3778740.79	0.08817	(07111808)	369684.59	3778685.54	0.09779	(05020708)
369709.02	3778685.54	0.10621	(07111808)	369733.45	3778685.54	0.11430	(07111808)
369760.06	3778685.54	0.12084	(07111108)	369810.59	3778741.35	0.08890	(07111108)
369828.20	3778628.60	0.09038	(06112808)	369866.96	3778657.96	0.07319	(06112808)
369904.54	3778679.10	0.06253	(07121108)	369858.74	3778708.37	0.06600	(06112308)
369905.71	3778639.08	0.07058	(07021408)	369885.75	3778619.11	0.07846	(07021408)
369638.62	3778030.06	0.13567	(06010508)	369698.03	3778231.80	0.24036	(07112508)
369682.83	3778161.33	0.21641	(06020508)	369653.81	3778099.15	0.17937	(06010508)

369666.25	3778059.08	0.14978	(06010508)	369722.90	3778230.42	0.23220	(05010408)
369715.99	3778190.35	0.20335	(07112508)	369703.56	3778158.57	0.19631	(06020508)
369686.98	3778126.79	0.20080	(06020508)	369675.92	3778097.77	0.17831	(06020508)
369703.56	3778108.82	0.18489	(06020508)	369727.05	3778139.22	0.17547	(07112508)
369903.91	3778552.37	0.08998	(05021108)	369866.61	3778563.43	0.09743	(05021308)
369873.52	3778516.45	0.11216	(06012608)	369887.33	3778491.57	0.11982	(05112908)
369859.70	3778444.59	0.14987	(06021308)	369849.63	3778322.03	0.22052	(06021208)
369643.37	3778672.46	0.10348	(06112408)	369644.15	3778798.32	0.06182	(06112408)
369591.64	3778749.96	0.07416	(06112408)	369640.00	3778638.03	0.12712	(06112408)
369590.26	3778698.83	0.09327	(06012708)	369569.53	3778751.34	0.07423	(06012708)
369621.84	3778549.71	0.28111	(07110816)	369608.62	3778540.93	0.27936	(07110816)
369491.97	3778688.07	0.09492	(07011508)	369551.43	3778498.04	0.61011	(07112008)
369467.11	3778588.61	0.21623	(07010208)	369442.24	3778525.50	0.34730	(07112008)
369426.94	3778653.64	0.11049	(06120908)	369430.77	3778596.26	0.20601	(07112008)
369384.87	3778676.59	0.08564	(07010208)	369398.26	3778498.73	0.29089	(07111708)
369245.26	3778531.24	0.11464	(07111708)	369245.26	3778441.35	0.09578	(06020208)
369484.59	3778462.33	0.44569	(07111708)	369629.21	3778438.68	0.00000	(00000000)
369814.80	3778308.83	0.23164	(05012608)	369781.29	3778368.86	0.25967	(05112208)
369811.05	3778376.63	0.22354	(05122308)	369852.96	3778354.56	0.22473	(05021208)
369860.75	3778292.26	0.21245	(06121308)	369856.21	3778259.16	0.19494	(05012208)

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CO ***
INCLUDING SOURCE(S): VOLGROUND , VOLSECOND , VOLTHIRD ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN PPM **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.07293	(07013008)	369686.20	3778352.98	0.05263	(05011208)
369701.74	3778534.95	0.03651	(07111108)	369684.96	3778565.24	0.03336	(07111108)
369709.39	3778565.24	0.03132	(07111108)	369733.82	3778565.24	0.02207	(07111108)
369760.43	3778565.24	0.01851	(06112808)	369684.96	3778627.64	0.01825	(07111808)
369709.39	3778627.64	0.02011	(07111808)	369733.82	3778627.64	0.02085	(07111108)
369760.43	3778627.64	0.01725	(07111108)	369684.56	3778740.79	0.00977	(07012808)
369708.99	3778740.79	0.00965	(05020708)	369733.42	3778740.79	0.01050	(07111808)
369760.02	3778740.79	0.01102	(07111808)	369684.59	3778685.54	0.01222	(05020708)
369709.02	3778685.54	0.01328	(07111808)	369733.45	3778685.54	0.01429	(07111808)
369760.06	3778685.54	0.01510	(07111108)	369810.59	3778741.35	0.01111	(07111108)
369828.20	3778628.60	0.01130	(06112808)	369866.96	3778657.96	0.00915	(06112808)
369904.54	3778679.10	0.00782	(07121108)	369858.74	3778708.37	0.00825	(06112308)
369905.71	3778639.08	0.00882	(07021408)	369885.75	3778619.11	0.00981	(07021408)
369638.62	3778030.06	0.01696	(06010508)	369698.03	3778231.80	0.03005	(07112508)
369682.83	3778161.33	0.02705	(06020508)	369653.81	3778099.15	0.02242	(06010508)
369666.25	3778059.08	0.01872	(06010508)	369722.90	3778230.42	0.02902	(05010408)
369715.99	3778190.35	0.02542	(07112508)	369703.56	3778158.57	0.02454	(06020508)
369686.98	3778126.79	0.02510	(06020508)	369675.92	3778097.77	0.02229	(06020508)
369703.56	3778108.82	0.02311	(06020508)	369727.05	3778139.22	0.02193	(07112508)
369903.91	3778552.37	0.01125	(05021108)	369866.61	3778563.43	0.01218	(05021308)
369873.52	3778516.45	0.01402	(06012608)	369887.33	3778491.57	0.01498	(05112908)
369859.70	3778444.59	0.01873	(06021308)	369849.63	3778322.03	0.02756	(06021208)
369643.37	3778672.46	0.01293	(06112408)	369644.15	3778798.32	0.00773	(06112408)
369591.64	3778749.96	0.00927	(06112408)	369640.00	3778638.03	0.01589	(06112408)
369590.26	3778698.83	0.01166	(06012708)	369569.53	3778751.34	0.00928	(06012708)
369621.84	3778549.71	0.03514	(07110816)	369608.62	3778540.93	0.03492	(07110816)
369491.97	3778688.07	0.01186	(07011508)	369551.43	3778498.04	0.07626	(07112008)
369467.11	3778588.61	0.02703	(07010208)	369442.24	3778525.50	0.04341	(07112008)
369426.94	3778653.64	0.01381	(06120908)	369430.77	3778596.26	0.02575	(07112008)
369384.87	3778676.59	0.01070	(07010208)	369398.26	3778498.73	0.03636	(07111708)
369245.26	3778531.24	0.01433	(07111708)	369245.26	3778441.35	0.01197	(06020208)
369484.59	3778462.33	0.05571	(07111708)	369629.21	3778438.68	0.00000	(00000000)
369814.80	3778308.83	0.02895	(05012608)	369781.29	3778368.86	0.03246	(05112208)
369811.05	3778376.63	0.02794	(05122308)	369852.96	3778354.56	0.02809	(05021208)
369860.75	3778292.26	0.02656	(06121308)	369856.21	3778259.16	0.02437	(05012208)

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOLGROUND , VOLSECOND , VOLTHIRD ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN PPM **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.07293	(07013008)	369686.20	3778352.98	0.05263	(05011208)
369701.74	3778534.95	0.03651	(07111108)	369684.96	3778565.24	0.03336	(07111108)
369709.39	3778565.24	0.03132	(07111108)	369733.82	3778565.24	0.02207	(07111108)
369760.43	3778565.24	0.01851	(06112808)	369684.96	3778627.64	0.01825	(07111808)
369709.39	3778627.64	0.02011	(07111808)	369733.82	3778627.64	0.02085	(07111108)
369760.43	3778627.64	0.01725	(07111108)	369684.56	3778740.79	0.00977	(07012808)
369708.99	3778740.79	0.00965	(05020708)	369733.42	3778740.79	0.01050	(07111808)
369760.02	3778740.79	0.01102	(07111808)	369684.59	3778685.54	0.01222	(05020708)
369709.02	3778685.54	0.01328	(07111808)	369733.45	3778685.54	0.01429	(07111808)
369760.06	3778685.54	0.01510	(07111108)	369810.59	3778741.35	0.01111	(07111108)
369828.20	3778628.60	0.01130	(06112808)	369866.96	3778657.96	0.00915	(06112808)
369904.54	3778679.10	0.00782	(07121108)	369858.74	3778708.37	0.00825	(06112308)
369905.71	3778639.08	0.00882	(07021408)	369885.75	3778619.11	0.00981	(07021408)
369638.62	3778030.06	0.01696	(06010508)	369698.03	3778231.80	0.03005	(07112508)
369682.83	3778161.33	0.02705	(06020508)	369653.81	3778099.15	0.02242	(06010508)
369666.25	3778059.08	0.01872	(06010508)	369722.90	3778230.42	0.02902	(05010408)
369715.99	3778190.35	0.02542	(07112508)	369703.56	3778158.57	0.02454	(06020508)
369686.98	3778126.79	0.02510	(06020508)	369675.92	3778097.77	0.02229	(06020508)
369703.56	3778108.82	0.02311	(06020508)	369727.05	3778139.22	0.02193	(07112508)
369903.91	3778552.37	0.01125	(05021108)	369866.61	3778563.43	0.01218	(05021308)
369873.52	3778516.45	0.01402	(06012608)	369887.33	3778491.57	0.01498	(05112908)
369859.70	3778444.59	0.01873	(06021308)	369849.63	3778322.03	0.02756	(06021208)
369643.37	3778672.46	0.01293	(06112408)	369644.15	3778798.32	0.00773	(06112408)
369591.64	3778749.96	0.00927	(06112408)	369640.00	3778638.03	0.01589	(06112408)
369590.26	3778698.83	0.01166	(06012708)	369569.53	3778751.34	0.00928	(06012708)
369621.84	3778549.71	0.03514	(07110816)	369608.62	3778540.93	0.03492	(07110816)
369491.97	3778688.07	0.01186	(07011508)	369551.43	3778498.04	0.07626	(07112008)
369467.11	3778588.61	0.02703	(07010208)	369442.24	3778525.50	0.04341	(07112008)

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       369426.94   3778653.64        0.01381  (06120908)              369430.77   3778596.26        0.02575  (07112008)
       369384.87   3778676.59        0.01070  (07010208)              369398.26   3778498.73        0.03636  (07111708)
       369245.26   3778531.24        0.01433  (07111708)              369245.26   3778441.35        0.01197  (06020208)
       369484.59   3778462.33        0.05571  (07111708)              369629.21   3778438.68        0.00000  (00000000)
       369814.80   3778308.83        0.02895  (05012608)              369781.29   3778368.86        0.03246  (05112208)
       369811.05   3778376.63        0.02794  (05122308)              369852.96   3778354.56        0.02809  (05021208)
       369860.75   3778292.26        0.02656  (06121308)              369856.21   3778259.16        0.02437  (05012208)
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure CO                                                 ***        14:26:12
                                                                                                                      PAGE  13
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                          *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                                   ** CONC OF CO       IN PPM                                    **

                                              DATE                                                                    NETWORK
GROUP ID                        AVERAGE CONC     (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

CO       HIGH   1ST HIGH VALUE IS       0.61011  ON 07112008: AT (  369551.43,  3778498.04,   235.98,   365.00,    0.00)  DC

ALL      HIGH   1ST HIGH VALUE IS       0.61011  ON 07112008: AT (  369551.43,  3778498.04,   235.98,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure CO                                                 ***        14:26:12
                                                                                                                      PAGE  14
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                          *** THE SUMMARY OF HIGHEST  8-HR RESULTS ***


                                   ** CONC OF CO       IN PPM                                    **

                                              DATE                                                                    NETWORK
GROUP ID                        AVERAGE CONC     (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

CO       HIGH   1ST HIGH VALUE IS       0.07626  ON 07112008: AT (  369551.43,  3778498.04,   235.98,   365.00,    0.00)  DC

ALL      HIGH   1ST HIGH VALUE IS       0.07626  ON 07112008: AT (  369551.43,  3778498.04,   235.98,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Parking Structure CO                                                 ***        14:26:12
                                                                                                                      PAGE  15
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of          154 Informational Message(s)

 A Total of        26280 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          154 Missing Hours Identified (  0.59 Percent)


    ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


    ********   WARNING MESSAGES   ********
              ***  NONE  ***


    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – PM_{10}

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 7.5.0
** Lakes Environmental Software Inc.
** Date: 10/25/2012
** File: J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\Construction\AERMOD\Operational\Bus PM10\Bus PM10.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Harvard Westlake Upper School Parking Infrastructure Project
   TITLETWO Operational School Bus PM10
   MODELOPT DFAULT CONC
   AVERTIME 24 ANNUAL
   URBANOPT 9862049
   POLLUTID PM_10
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "Bus PM10.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** Line Source represented by Separated Volume Sources
** ------------------------------------------------------------------------
** LINE Source ID = SLINE1
** DESCRSRC Bus Travel from SB on Coldwater Canyon from US-101
** Length of Side = 7.32
** Emission Rate = 0.000114
** Vertical Dimension = 5.00
** SZINIT = 2.33
** Nodes = 5
** 369659.17, 3778795.35, 213.00, 0.00, 6.60
** 369656.50, 3778635.36, 222.00, 0.00, 6.60
** 369659.17, 3778598.03, 222.00, 0.00, 6.60
** 369668.50, 3778550.03, 231.00, 0.00, 6.60
** 369672.50, 3778491.37, 240.00, 0.00, 6.60
** ------------------------------------------------------------------------
   LOCATION L0000380     VOLUME   369659.106 3778791.697 212.06
   LOCATION L0000381     VOLUME   369658.870 3778777.517 212.28
   LOCATION L0000382     VOLUME   369658.634 3778763.337 212.48
   LOCATION L0000383     VOLUME   369658.397 3778749.157 212.56
   LOCATION L0000384     VOLUME   369658.161 3778734.976 212.64
   LOCATION L0000385     VOLUME   369657.925 3778720.796 212.73
   LOCATION L0000386     VOLUME   369657.688 3778706.616 212.81
   LOCATION L0000387     VOLUME   369657.452 3778692.436 212.89
   LOCATION L0000388     VOLUME   369657.216 3778678.256 212.98
   LOCATION L0000389     VOLUME   369656.979 3778664.075 213.80
   LOCATION L0000390     VOLUME   369656.743 3778649.895 214.93
   LOCATION L0000391     VOLUME   369656.507 3778635.715 216.07
   LOCATION L0000392     VOLUME   369657.486 3778621.568 217.17
   LOCATION L0000393     VOLUME   369658.496 3778607.422 218.26
   LOCATION L0000394     VOLUME   369660.077 3778593.351 219.31
   LOCATION L0000395     VOLUME   369662.784 3778579.430 220.36
   LOCATION L0000396     VOLUME   369665.491 3778565.509 221.91
   LOCATION L0000397     VOLUME   369668.198 3778551.587 223.48
   LOCATION L0000398     VOLUME   369669.357 3778537.463 225.15
   LOCATION L0000399     VOLUME   369670.322 3778523.314 226.84
   LOCATION L0000400     VOLUME   369671.287 3778509.165 228.55
   LOCATION L0000401     VOLUME   369672.251 3778495.015 230.26
** End of Line Source
** Line Source represented by Separated Volume Sources
** ------------------------------------------------------------------------
** LINE Source ID = SLINE2
** DESCRSRC Bus Travel SB from Coldwater Canyon
** Length of Side = 7.32
** Emission Rate = 0.000343
** Vertical Dimension = 5.00
** SZINIT = 2.33
** Nodes = 6
** 369678.85, 3778478.78, 238.00, 0.00, 6.52
** 369680.18, 3778462.79, 238.00, 0.00, 6.52
** 369722.85, 3778362.79, 243.00, 0.00, 6.52
** 369765.51, 3778304.12, 243.00, 0.00, 6.52
** 369774.85, 3778292.12, 243.00, 0.00, 6.52
** 369786.85, 3778261.46, 243.00, 0.00, 6.52
** ------------------------------------------------------------------------
   LOCATION L0000165     VOLUME   369679.153 3778475.140 232.08
   LOCATION L0000166     VOLUME   369680.815 3778461.304 233.16
   LOCATION L0000167     VOLUME   369686.312 3778448.420 234.09
   LOCATION L0000168     VOLUME   369691.809 3778435.537 235.00
   LOCATION L0000169     VOLUME   369697.306 3778422.653 235.94
   LOCATION L0000170     VOLUME   369702.803 3778409.769 236.92
   LOCATION L0000171     VOLUME   369708.301 3778396.885 237.93
   LOCATION L0000172     VOLUME   369713.798 3778384.001 238.61
   LOCATION L0000173     VOLUME   369719.295 3778371.117 239.23
   LOCATION L0000174     VOLUME   369725.761 3778358.783 239.81
   LOCATION L0000175     VOLUME   369734.000 3778347.455 240.30
   LOCATION L0000176     VOLUME   369742.239 3778336.126 240.76
   LOCATION L0000177     VOLUME   369750.478 3778324.798 241.20
   LOCATION L0000178     VOLUME   369758.717 3778313.469 241.61
   LOCATION L0000179     VOLUME   369767.019 3778302.188 242.04
   LOCATION L0000180     VOLUME   369775.305 3778290.953 242.25
   LOCATION L0000181     VOLUME   369780.409 3778277.908 242.42
   LOCATION L0000182     VOLUME   369785.514 3778264.864 242.58
** End of Line Source
   LOCATION AREA         AREA       369794.871  3778265.530      242.640
** DESCRSRC Bus South Lot
** Source Parameters **
```

```
   SRCPARAM L0000380     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000381     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000382     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000383     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000384     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000385     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000386     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000387     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000388     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000389     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000390     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000391     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000392     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000393     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000394     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000395     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000396     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000397     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000398     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000399     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000400     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000401     5.1818E-06      0.00      6.60      2.33
   SRCPARAM L0000165     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000166     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000167     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000168     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000169     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000170     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000171     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000172     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000173     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000174     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000175     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000176     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000177     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000178     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000179     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000180     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000181     0.0000190556      0.00      6.52      2.33
   SRCPARAM L0000182     0.0000190556      0.00      6.52      2.33
   SRCPARAM AREA         9.5475E-09     5.000    33.000    73.000   -27.850
   URBANSRC L0000380
   URBANSRC L0000381
   URBANSRC L0000382
   URBANSRC L0000383
   URBANSRC L0000384
   URBANSRC L0000385
   URBANSRC L0000386
   URBANSRC L0000387
   URBANSRC L0000388
   URBANSRC L0000389
   URBANSRC L0000390
   URBANSRC L0000391
   URBANSRC L0000392
   URBANSRC L0000393
   URBANSRC L0000394
   URBANSRC L0000395
   URBANSRC L0000396
   URBANSRC L0000397
   URBANSRC L0000398
   URBANSRC L0000399
   URBANSRC L0000400
   URBANSRC L0000401
   URBANSRC L0000165
   URBANSRC L0000166
   URBANSRC L0000167
   URBANSRC L0000168
   URBANSRC L0000169
   URBANSRC L0000170
   URBANSRC L0000171
   URBANSRC L0000172
   URBANSRC L0000173
   URBANSRC L0000174
   URBANSRC L0000175
   URBANSRC L0000176
   URBANSRC L0000177
   URBANSRC L0000178
   URBANSRC L0000179
   URBANSRC L0000180
   URBANSRC L0000181
   URBANSRC L0000182
   URBANSRC AREA

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Bus"
   EMISFACT L0000165     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000165     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000165     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000165     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000166     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000166     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000166     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000166     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000167     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000167     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000167     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000167     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000168     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000168     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000168     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000168     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000169     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000169     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000169     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000169     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000170     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000170     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000170     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000170     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000171     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000171     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000171     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000171     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – PM_{10}

```
EMISFACT L0000172     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000172     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000172     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000172     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000173     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000173     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000173     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000173     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000174     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000174     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000174     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000174     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000175     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000175     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000175     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000175     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000176     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000176     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000176     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
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EMISFACT L0000177     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000177     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000177     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000177     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000178     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000178     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000178     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000178     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000179     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000179     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000179     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000179     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000180     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000180     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000180     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000180     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000181     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000181     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000181     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
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EMISFACT L0000182     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000182     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
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EMISFACT L0000382     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
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EMISFACT L0000383     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000383     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
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EMISFACT L0000384     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000385     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000385     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000385     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000385     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000386     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000386     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
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EMISFACT L0000387     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
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EMISFACT L0000388     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000388     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000388     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000388     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000389     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000389     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000389     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000389     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000390     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000390     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000391     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000391     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000391     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000392     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000392     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000392     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000392     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000393     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000393     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000393     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
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EMISFACT L0000394     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000394     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000394     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000395     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000395     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000395     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000396     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000396     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000396     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000396     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000397     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

```
   EMISFACT L0000397     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000397     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000397     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000398     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000398     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000398     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000398     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000399     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000399     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000399     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000399     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000400     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000400     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000400     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000400     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000401     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000401     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000401     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000401     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP PM10     L0000380 L0000381 L0000382 L0000383 L0000384 L0000385
   SRCGROUP PM10     L0000386 L0000387 L0000388 L0000389 L0000390 L0000391
   SRCGROUP PM10     L0000392 L0000393 L0000394 L0000395 L0000396 L0000397
   SRCGROUP PM10     L0000398 L0000399 L0000400 L0000401 L0000165 L0000166
   SRCGROUP PM10     L0000167 L0000168 L0000169 L0000170 L0000171 L0000172
   SRCGROUP PM10     L0000173 L0000174 L0000175 L0000176 L0000177 L0000178
   SRCGROUP PM10     L0000179 L0000180 L0000181 L0000182 AREA
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "Bus PM10.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC"
   PROFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL"
   SURFDATA 0 2005
   UAIRDATA 3190 2005
   PROFBASE 0.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "BUS PM10.AD\24H1GALL.PLT"
   PLOTFILE 24 PM10 1ST "BUS PM10.AD\24H1G001.PLT"
   PLOTFILE ANNUAL ALL "BUS PM10.AD\AN00GALL.PLT"
   PLOTFILE ANNUAL PM10 "BUS PM10.AD\AN00G000.PLT"
   SUMMFILE "Bus PM10.sum"
OU FINISHED

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM10                                          ***        15:04:11
                                                                                                                      PAGE   1
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                       ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    41 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay for URBAN/Non-SO2.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Model Accepts FLAGPOLE Receptor Heights.

 **Model Calculates  1 Short Term Average(s) of:  24-HR
     and Calculates ANNUAL Averages

 **This Run Includes:     41 Source(s);       2 Source Group(s); and      70 Receptor(s)

 **The Model Assumes A Pollutant Type of:  PM_10
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – PM_{10}

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
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) = 0.00 ; 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 = 3.5 MB of RAM.

**Detailed Error/Message File: Bus PM10.err
**File for Summary of Results: Bus PM10.sum

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus PM10 *** 15:04:11
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000380	0	0.51818E-05	369659.1	3778791.7	212.1	0.00	6.60	2.33	YES	HROFDY
L0000381	0	0.51818E-05	369658.9	3778777.5	212.3	0.00	6.60	2.33	YES	HROFDY
L0000382	0	0.51818E-05	369658.6	3778763.3	212.5	0.00	6.60	2.33	YES	HROFDY
L0000383	0	0.51818E-05	369658.4	3778749.2	212.6	0.00	6.60	2.33	YES	HROFDY
L0000384	0	0.51818E-05	369658.2	3778735.0	212.6	0.00	6.60	2.33	YES	HROFDY
L0000385	0	0.51818E-05	369657.9	3778720.8	212.7	0.00	6.60	2.33	YES	HROFDY
L0000386	0	0.51818E-05	369657.7	3778706.6	212.8	0.00	6.60	2.33	YES	HROFDY
L0000387	0	0.51818E-05	369657.5	3778692.4	212.9	0.00	6.60	2.33	YES	HROFDY
L0000388	0	0.51818E-05	369657.2	3778678.3	213.0	0.00	6.60	2.33	YES	HROFDY
L0000389	0	0.51818E-05	369657.0	3778664.1	213.8	0.00	6.60	2.33	YES	HROFDY
L0000390	0	0.51818E-05	369656.7	3778649.9	214.9	0.00	6.60	2.33	YES	HROFDY
L0000391	0	0.51818E-05	369656.5	3778635.7	216.1	0.00	6.60	2.33	YES	HROFDY
L0000392	0	0.51818E-05	369657.5	3778621.6	217.2	0.00	6.60	2.33	YES	HROFDY
L0000393	0	0.51818E-05	369658.5	3778607.4	218.3	0.00	6.60	2.33	YES	HROFDY
L0000394	0	0.51818E-05	369660.1	3778593.4	219.3	0.00	6.60	2.33	YES	HROFDY
L0000395	0	0.51818E-05	369662.8	3778579.4	220.4	0.00	6.60	2.33	YES	HROFDY
L0000396	0	0.51818E-05	369665.5	3778565.5	221.9	0.00	6.60	2.33	YES	HROFDY
L0000397	0	0.51818E-05	369668.2	3778551.6	223.5	0.00	6.60	2.33	YES	HROFDY
L0000398	0	0.51818E-05	369669.4	3778537.5	225.2	0.00	6.60	2.33	YES	HROFDY
L0000399	0	0.51818E-05	369670.3	3778523.3	226.8	0.00	6.60	2.33	YES	HROFDY
L0000400	0	0.51818E-05	369671.3	3778509.2	228.6	0.00	6.60	2.33	YES	HROFDY
L0000401	0	0.51818E-05	369672.3	3778495.0	230.3	0.00	6.60	2.33	YES	HROFDY
L0000165	0	0.19056E-04	369679.2	3778475.1	232.1	0.00	6.52	2.33	YES	HROFDY
L0000166	0	0.19056E-04	369680.8	3778461.3	233.2	0.00	6.52	2.33	YES	HROFDY
L0000167	0	0.19056E-04	369686.3	3778448.4	234.1	0.00	6.52	2.33	YES	HROFDY
L0000168	0	0.19056E-04	369691.8	3778435.5	235.0	0.00	6.52	2.33	YES	HROFDY
L0000169	0	0.19056E-04	369697.3	3778422.7	235.9	0.00	6.52	2.33	YES	HROFDY
L0000170	0	0.19056E-04	369702.8	3778409.8	236.9	0.00	6.52	2.33	YES	HROFDY
L0000171	0	0.19056E-04	369708.3	3778396.9	237.9	0.00	6.52	2.33	YES	HROFDY
L0000172	0	0.19056E-04	369713.8	3778384.0	238.6	0.00	6.52	2.33	YES	HROFDY
L0000173	0	0.19056E-04	369719.3	3778371.1	239.2	0.00	6.52	2.33	YES	HROFDY
L0000174	0	0.19056E-04	369725.8	3778358.8	239.8	0.00	6.52	2.33	YES	HROFDY
L0000175	0	0.19056E-04	369734.0	3778347.5	240.3	0.00	6.52	2.33	YES	HROFDY
L0000176	0	0.19056E-04	369742.2	3778336.1	240.8	0.00	6.52	2.33	YES	HROFDY
L0000177	0	0.19056E-04	369750.5	3778324.8	241.2	0.00	6.52	2.33	YES	HROFDY
L0000178	0	0.19056E-04	369758.7	3778313.5	241.6	0.00	6.52	2.33	YES	HROFDY
L0000179	0	0.19056E-04	369767.0	3778302.2	242.0	0.00	6.52	2.33	YES	HROFDY
L0000180	0	0.19056E-04	369775.3	3778291.0	242.2	0.00	6.52	2.33	YES	HROFDY
L0000181	0	0.19056E-04	369780.4	3778277.9	242.4	0.00	6.52	2.33	YES	HROFDY
L0000182	0	0.19056E-04	369785.5	3778264.9	242.6	0.00	6.52	2.33	YES	HROFDY

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus PM10 *** 15:04:11
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
AREA	0	0.95475E-08	369794.9	3778265.5	242.6	5.00	33.00	73.00	-27.85	0.00	YES	HROFDY

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus PM10 *** 15:04:11
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs							
PM10	L0000380	, L0000381	, L0000382	, L0000383	, L0000384	, L0000385	, L0000386	, L0000387 ,
	L0000388	, L0000389	, L0000390	, L0000391	, L0000392	, L0000393	, L0000394	, L0000395 ,
	L0000396	, L0000397	, L0000398	, L0000399	, L0000400	, L0000401	, L0000165	, L0000166 ,
	L0000167	, L0000168	, L0000169	, L0000170	, L0000171	, L0000172	, L0000173	, L0000174 ,
	L0000175	, L0000176	, L0000177	, L0000178	, L0000179	, L0000180	, L0000181	, L0000182 ,
	AREA ,							

```
 ALL       L0000380    , L0000381    , L0000382    , L0000383    , L0000384    , L0000385    , L0000386    , L0000387    ,
           L0000388    , L0000389    , L0000390    , L0000391    , L0000392    , L0000393    , L0000394    , L0000395    ,
           L0000396    , L0000397    , L0000398    , L0000399    , L0000400    , L0000401    , L0000165    , L0000166    ,
           L0000167    , L0000168    , L0000169    , L0000170    , L0000171    , L0000172    , L0000173    , L0000174    ,
           L0000175    , L0000176    , L0000177    , L0000178    , L0000179    , L0000180    , L0000181    , L0000182    ,
           AREA        ,
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                 *** Operational School Bus PM10                                          ***        15:04:11
                                                                                                                     PAGE   5
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000380     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000381     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000382     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000383     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000384     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                 *** Operational School Bus PM10                                          ***        15:04:11
                                                                                                                     PAGE   6
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000385     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000386     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000387     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000388     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000389     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                 *** Operational School Bus PM10                                          ***        15:04:11
                                                                                                                     PAGE   7
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – PM_{10}

```
    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000390     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000391     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000392     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000393     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000394     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM10                                          ***        15:04:11
                                                                                                                      PAGE   8
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000395     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000396     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000397     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000398     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000399     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM10                                          ***        15:04:11
                                                                                                                      PAGE   9
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000400     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000401     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000165     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
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     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000166     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000167     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM10                                          ***        15:04:11
                                                                                                                      PAGE  10
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000168     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000169     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000170     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000171     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000172     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM10                                          ***        15:04:11
                                                                                                                      PAGE  11
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000173     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000174     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000175     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000176     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000177     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM10                                          ***        15:04:11
                                                                                                                      PAGE  12
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL
```

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0000178 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000179 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000180 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000181 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000182 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = AREA ; SOURCE TYPE = AREA :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(369670.5, 3778388.3,	238.9,	365.0,	0.0);	(369686.2, 3778353.0,	240.4,	365.0,	0.0);
(369701.7, 3778534.9,	224.8,	365.0,	0.0);	(369685.0, 3778565.2,	221.3,	365.0,	0.0);
(369709.4, 3778565.2,	220.8,	365.0,	0.0);	(369733.8, 3778565.2,	220.3,	365.0,	0.0);
(369760.4, 3778565.2,	219.9,	365.0,	0.0);	(369685.0, 3778627.6,	216.1,	365.0,	0.0);
(369709.4, 3778627.6,	215.9,	365.0,	0.0);	(369733.8, 3778627.6,	215.7,	365.0,	0.0);
(369760.4, 3778627.6,	215.5,	365.0,	0.0);	(369684.6, 3778740.8,	212.4,	365.0,	0.0);
(369709.0, 3778740.8,	212.3,	365.0,	0.0);	(369733.4, 3778740.8,	212.3,	365.0,	0.0);
(369760.0, 3778740.8,	212.3,	365.0,	0.0);	(369684.6, 3778685.5,	212.9,	365.0,	0.0);
(369709.0, 3778685.5,	212.9,	365.0,	0.0);	(369733.5, 3778685.5,	212.9,	365.0,	0.0);
(369760.1, 3778685.5,	212.9,	365.0,	0.0);	(369810.6, 3778741.3,	212.1,	365.0,	0.0);
(369828.2, 3778628.6,	214.6,	365.0,	0.0);	(369867.0, 3778658.0,	212.8,	365.0,	0.0);
(369904.5, 3778679.1,	212.0,	365.0,	0.0);	(369858.7, 3778708.4,	212.0,	365.0,	0.0);
(369905.7, 3778639.1,	214.2,	365.0,	0.0);	(369885.8, 3778619.1,	215.4,	365.0,	0.0);
(369638.6, 3778030.1,	269.3,	365.0,	0.0);	(369698.0, 3778231.8,	243.0,	365.0,	0.0);
(369682.8, 3778161.3,	247.8,	365.0,	0.0);	(369653.8, 3778099.1,	252.5,	365.0,	0.0);
(369666.2, 3778059.1,	259.1,	365.0,	0.0);	(369722.9, 3778230.4,	242.9,	365.0,	0.0);
(369716.0, 3778190.3,	244.4,	365.0,	0.0);	(369703.6, 3778158.6,	247.2,	365.0,	0.0);
(369687.0, 3778126.8,	251.1,	365.0,	0.0);	(369675.9, 3778097.8,	253.5,	365.0,	0.0);
(369703.6, 3778108.8,	251.0,	365.0,	0.0);	(369727.0, 3778139.2,	247.0,	365.0,	0.0);
(369903.9, 3778552.4,	223.0,	365.0,	0.0);	(369866.6, 3778563.4,	219.9,	365.0,	0.0);
(369873.5, 3778516.4,	227.5,	365.0,	0.0);	(369887.3, 3778491.6,	232.5,	304.0,	0.0);
(369859.7, 3778444.6,	236.3,	304.0,	0.0);	(369849.6, 3778322.0,	243.9,	365.0,	0.0);
(369643.4, 3778672.5,	213.2,	365.0,	0.0);	(369644.1, 3778798.3,	212.1,	365.0,	0.0);
(369591.6, 3778750.0,	213.4,	365.0,	0.0);	(369640.0, 3778638.0,	216.2,	365.0,	0.0);
(369590.3, 3778698.8,	214.8,	365.0,	0.0);	(369569.5, 3778751.3,	213.8,	365.0,	0.0);
(369621.8, 3778549.7,	225.0,	365.0,	0.0);	(369608.6, 3778540.9,	226.6,	365.0,	0.0);
(369492.0, 3778688.1,	228.6,	365.0,	0.0);	(369551.4, 3778498.0,	236.0,	365.0,	0.0);
(369467.1, 3778588.6,	240.7,	365.0,	0.0);	(369442.2, 3778525.5,	243.2,	365.0,	0.0);
(369426.9, 3778653.6,	236.6,	365.0,	0.0);	(369430.8, 3778596.3,	241.5,	365.0,	0.0);
(369384.9, 3778676.6,	233.1,	365.0,	0.0);	(369398.3, 3778498.7,	243.2,	365.0,	0.0);
(369245.3, 3778531.2,	233.6,	365.0,	0.0);	(369245.3, 3778441.3,	240.3,	365.0,	0.0);
(369484.6, 3778462.3,	244.4,	365.0,	0.0);	(369629.2, 3778438.7,	235.7,	365.0,	17.4);
(369814.8, 3778308.8,	242.5,	365.0,	0.0);	(369781.3, 3778368.9,	239.6,	365.0,	0.0);
(369811.0, 3778376.6,	240.3,	365.0,	0.0);	(369853.0, 3778354.6,	243.2,	304.0,	0.0);
(369860.8, 3778292.3,	246.5,	304.0,	0.0);	(369856.2, 3778259.2,	245.7,	365.0,	0.0);

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000388	369643.4	3778672.5	0.82

(XR/YR columns: - - RECEPTOR LOCATION - -)

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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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 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 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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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,

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC Met Version: 11059
Profile file: L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2005 Year: 2005

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
05	01	01	1	01	-1.5	0.047	-9.000	-9.000	-999.	24.	6.3	0.63	1.00	1.00	0.70	285.	12.2	279.9	8.5
05	01	01	1	02	-1.7	0.054	-9.000	-9.000	-999.	29.	8.3	0.63	1.00	1.00	0.80	278.	12.2	279.9	8.5
05	01	01	1	03	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	335.	12.2	279.2	8.5
05	01	01	1	04	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	291.	12.2	278.8	8.5
05	01	01	1	05	-2.1	0.061	-9.000	-9.000	-999.	34.	9.4	0.63	1.00	1.00	0.90	334.	12.2	278.1	8.5
05	01	01	1	06	-0.9	0.040	-9.000	-9.000	-999.	19.	6.2	0.63	1.00	1.00	0.60	309.	12.2	278.8	8.5
05	01	01	1	07	-1.3	0.047	-9.000	-9.000	-999.	24.	7.3	0.63	1.00	1.00	0.70	312.	12.2	278.8	8.5
05	01	01	1	08	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	0.56	0.60	256.	12.2	279.2	8.5
05	01	01	1	09	20.5	0.177	0.303	0.005	48.	171.	-23.9	0.63	1.00	0.33	1.00	298.	12.2	282.5	8.5
05	01	01	1	10	52.6	0.184	1.005	0.005	684.	181.	-10.4	0.63	1.00	0.25	0.90	103.	12.2	286.4	8.5
05	01	01	1	11	109.2	0.376	1.415	0.006	920.	529.	-42.9	0.63	1.00	0.22	2.30	136.	12.2	287.0	8.5
05	01	01	1	12	27.8	0.303	0.917	0.007	980.	386.	-88.5	0.63	1.00	0.21	2.00	152.	12.2	287.0	8.5
05	01	01	1	13	27.2	0.255	0.927	0.007	1037.	297.	-53.9	0.63	1.00	0.21	1.60	187.	12.2	285.9	8.5
05	01	01	1	14	22.9	0.227	0.899	0.008	1123.	249.	-45.2	0.63	1.00	0.22	1.40	156.	12.2	287.0	8.5
05	01	01	1	15	13.9	0.218	0.774	0.009	1179.	234.	-66.0	0.63	1.00	0.26	1.40	192.	12.2	286.4	8.5
05	01	01	1	16	1.5	0.234	0.373	0.009	1183.	260.	-729.3	0.63	1.00	0.34	1.70	188.	12.2	285.9	8.5
05	01	01	1	17	-3.6	0.088	-9.000	-9.000	-999.	77.	16.6	0.63	1.00	0.61	1.30	200.	12.2	285.4	8.5
05	01	01	1	18	-1.8	0.061	-9.000	-9.000	-999.	34.	11.0	0.63	1.00	1.00	0.90	162.	12.2	284.9	8.5
05	01	01	1	19	-1.1	0.047	-9.000	-9.000	-999.	24.	8.6	0.63	1.00	1.00	0.70	176.	12.2	284.9	8.5
05	01	01	1	20	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	210.	12.2	284.2	8.5
05	01	01	1	21	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	236.	12.2	284.2	8.5
05	01	01	1	22	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	272.	12.2	283.8	8.5
05	01	01	1	23	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	251.	12.2	283.1	8.5
05	01	01	1	24	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	301.	12.2	282.5	8.5

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
05	01	01	01	8.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
05	01	01	01	12.2	1	285.	0.70	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: PM10 ***
INCLUDING SOURCE(S): L0000380 , L0000381 , L0000382 , L0000383 , L0000384 ,
L0000385 , L0000386 , L0000387 , L0000388 , L0000389 , L0000390 , L0000391 , L0000392 ,
L0000393 , L0000394 , L0000395 , L0000396 , L0000397 , L0000398 , L0000399 , L0000400 ,
L0000401 , L0000165 , L0000166 , L0000167 , L0000168 , L0000169 , L0000170 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
369670.52	3778388.27	0.00279	369686.20	3778352.98	0.00272
369701.74	3778534.95	0.00182	369684.96	3778565.24	0.00226
369709.39	3778565.24	0.00128	369733.82	3778565.24	0.00094
369760.43	3778565.24	0.00073	369684.96	3778627.64	0.00160
369709.39	3778627.64	0.00097	369733.82	3778627.64	0.00071
369760.43	3778627.64	0.00056	369684.56	3778740.79	0.00149
369708.99	3778740.79	0.00079	369733.42	3778740.79	0.00053
369760.02	3778740.79	0.00039	369684.59	3778685.54	0.00154
369709.02	3778685.54	0.00087	369733.45	3778685.54	0.00062
369760.06	3778685.54	0.00047	369810.59	3778741.35	0.00027
369828.20	3778628.60	0.00034	369866.96	3778657.96	0.00024

369904.54	3778679.10	0.00019	369858.74	3778708.37	0.00022
369905.71	3778639.08	0.00021	369885.75	3778619.11	0.00025
369638.62	3778030.06	0.00003	369698.03	3778231.80	0.00054
369682.83	3778161.33	0.00019	369653.81	3778099.15	0.00009
369666.25	3778059.08	0.00006	369722.90	3778230.42	0.00069
369715.99	3778190.35	0.00034	369703.56	3778158.57	0.00021
369686.98	3778126.79	0.00013	369675.92	3778097.77	0.00009
369703.56	3778108.82	0.00012	369727.05	3778139.22	0.00019
369903.91	3778552.37	0.00028	369866.61	3778563.43	0.00034
369873.52	3778516.45	0.00040	369887.33	3778491.57	0.00040
369859.70	3778444.59	0.00061	369849.63	3778322.03	0.00126
369643.37	3778672.46	0.00188	369644.15	3778798.32	0.00142
369591.64	3778749.96	0.00049	369640.00	3778638.03	0.00209
369590.26	3778698.83	0.00053	369569.53	3778751.34	0.00035
369621.84	3778549.71	0.00101	369608.62	3778540.93	0.00082
369491.97	3778688.07	0.00019	369551.43	3778498.04	0.00045
369467.11	3778588.61	0.00019	369442.24	3778525.50	0.00018
369426.94	3778653.64	0.00014	369430.77	3778596.26	0.00016
369384.87	3778676.59	0.00012	369398.26	3778498.73	0.00014
369245.26	3778531.24	0.00007	369245.26	3778441.35	0.00006
369484.59	3778462.33	0.00023	369629.21	3778438.68	0.00052
369814.80	3778308.83	0.00299	369781.29	3778368.86	0.00295
369811.05	3778376.63	0.00169	369852.96	3778354.56	0.00103
369860.75	3778292.26	0.00106	369856.21	3778259.16	0.00098

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000380 , L0000381 , L0000382 , L0000383 , L0000384 ,
L0000385 , L0000386 , L0000387 , L0000388 , L0000389 , L0000390 , L0000391 , L0000392 ,
L0000393 , L0000394 , L0000395 , L0000396 , L0000397 , L0000398 , L0000399 , L0000400 ,
L0000401 , L0000165 , L0000166 , L0000167 , L0000168 , L0000169 , L0000170 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
369670.52	3778388.27	0.00279	369686.20	3778352.98	0.00272
369701.74	3778534.95	0.00182	369684.96	3778565.24	0.00226
369709.39	3778565.24	0.00128	369733.82	3778565.24	0.00094
369760.43	3778565.24	0.00073	369684.96	3778627.64	0.00160
369709.39	3778627.64	0.00097	369733.82	3778627.64	0.00071
369760.43	3778627.64	0.00056	369684.56	3778740.79	0.00149
369708.99	3778740.79	0.00079	369733.42	3778740.79	0.00053
369760.02	3778740.79	0.00039	369684.59	3778685.54	0.00154
369709.02	3778685.54	0.00087	369733.45	3778685.54	0.00062
369760.06	3778685.54	0.00047	369810.59	3778741.35	0.00027
369828.20	3778628.60	0.00034	369866.96	3778657.96	0.00024
369904.54	3778679.10	0.00019	369858.74	3778708.37	0.00022
369905.71	3778639.08	0.00021	369885.75	3778619.11	0.00025
369638.62	3778030.06	0.00003	369698.03	3778231.80	0.00054
369682.83	3778161.33	0.00019	369653.81	3778099.15	0.00009
369666.25	3778059.08	0.00006	369722.90	3778230.42	0.00069
369715.99	3778190.35	0.00034	369703.56	3778158.57	0.00021
369686.98	3778126.79	0.00013	369675.92	3778097.77	0.00009
369703.56	3778108.82	0.00012	369727.05	3778139.22	0.00019
369903.91	3778552.37	0.00028	369866.61	3778563.43	0.00034
369873.52	3778516.45	0.00040	369887.33	3778491.57	0.00040
369859.70	3778444.59	0.00061	369849.63	3778322.03	0.00126
369643.37	3778672.46	0.00188	369644.15	3778798.32	0.00142
369591.64	3778749.96	0.00049	369640.00	3778638.03	0.00209
369590.26	3778698.83	0.00053	369569.53	3778751.34	0.00035
369621.84	3778549.71	0.00101	369608.62	3778540.93	0.00082
369491.97	3778688.07	0.00019	369551.43	3778498.04	0.00045
369467.11	3778588.61	0.00019	369442.24	3778525.50	0.00018
369426.94	3778653.64	0.00014	369430.77	3778596.26	0.00016
369384.87	3778676.59	0.00012	369398.26	3778498.73	0.00014
369245.26	3778531.24	0.00007	369245.26	3778441.35	0.00006
369484.59	3778462.33	0.00023	369629.21	3778438.68	0.00052
369814.80	3778308.83	0.00299	369781.29	3778368.86	0.00295
369811.05	3778376.63	0.00169	369852.96	3778354.56	0.00103
369860.75	3778292.26	0.00106	369856.21	3778259.16	0.00098

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM10 ***
INCLUDING SOURCE(S): L0000380 , L0000381 , L0000382 , L0000383 , L0000384 ,
L0000385 , L0000386 , L0000387 , L0000388 , L0000389 , L0000390 , L0000391 , L0000392 ,
L0000393 , L0000394 , L0000395 , L0000396 , L0000397 , L0000398 , L0000399 , L0000400 ,
L0000401 , L0000165 , L0000166 , L0000167 , L0000168 , L0000169 , L0000170 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.01182	(07112024)	369686.20	3778352.98	0.01175	(07111724)
369701.74	3778534.95	0.00482	(06112424)	369684.96	3778565.24	0.00574	(07111724)
369709.39	3778565.24	0.00353	(06112424)	369733.82	3778565.24	0.00278	(07111124)
369760.43	3778565.24	0.00229	(07122024)	369684.96	3778627.64	0.00411	(07111724)
369709.39	3778627.64	0.00277	(05010124)	369733.82	3778627.64	0.00223	(05010124)
369760.43	3778627.64	0.00184	(05010124)	369684.56	3778740.79	0.00399	(07111124)
369708.99	3778740.79	0.00225	(05010124)	369733.42	3778740.79	0.00172	(05010124)
369760.02	3778740.79	0.00141	(05010124)	369684.59	3778685.54	0.00401	(07111124)
369709.02	3778685.54	0.00248	(05010124)	369733.45	3778685.54	0.00195	(05010124)
369760.06	3778685.54	0.00161	(05010124)	369810.59	3778741.35	0.00101	(05010124)
369828.20	3778628.60	0.00128	(07111124)	369866.96	3778657.96	0.00106	(07113024)
369904.54	3778679.10	0.00099	(07111824)	369858.74	3778708.37	0.00095	(07111124)
369905.71	3778639.08	0.00115	(07111824)	369885.75	3778619.11	0.00123	(07111824)
369638.62	3778030.06	0.00129	(07010824)	369698.03	3778231.80	0.00352	(05010224)
369682.83	3778161.33	0.00261	(05021624)	369653.81	3778099.15	0.00181	(07010824)
369666.25	3778059.08	0.00181	(05120424)	369722.90	3778230.42	0.00445	(05010224)
369715.99	3778190.35	0.00279	(05010224)	369703.56	3778158.57	0.00276	(06010524)
369686.98	3778126.79	0.00251	(05021624)	369675.92	3778097.77	0.00220	(05021624)

```
       369703.56   3778108.82        0.00261  (06010524)               369727.05   3778139.22        0.00236  (06010524)
       369903.91   3778552.37        0.00150  (07111824)               369866.61   3778563.43        0.00156  (07111824)
       369873.52   3778516.45        0.00203  (07111824)               369887.33   3778491.57        0.00207  (07111124)
       369859.70   3778444.59        0.00298  (07111824)               369849.63   3778322.03        0.00639  (05010524)
       369643.37   3778672.46        0.00546  (07111724)               369644.15   3778798.32        0.00422  (07111724)
       369591.64   3778749.96        0.00179  (05121824)               369640.00   3778638.03        0.00627  (07111724)
       369590.26   3778698.83        0.00198  (06012424)               369569.53   3778751.34        0.00147  (06012424)
       369621.84   3778549.71        0.00378  (07010724)               369608.62   3778540.93        0.00357m (07121824)
       369491.97   3778688.07        0.00138m (07121824)               369551.43   3778498.04        0.00346  (07112024)
       369467.11   3778588.61        0.00191  (07112024)               369442.24   3778525.50        0.00231  (07112024)
       369426.94   3778653.64        0.00125m (07121824)               369430.77   3778596.26        0.00189  (07112024)
       369384.87   3778676.59        0.00102m (07121824)               369398.26   3778498.73        0.00152  (07112024)
       369245.26   3778531.24        0.00090  (07111724)               369245.26   3778441.35        0.00093  (07111724)
       369484.59   3778462.33        0.00238  (07112024)               369629.21   3778438.68        0.00328  (07010224)
       369814.80   3778308.83        0.00999  (05010524)               369781.29   3778368.86        0.00799  (07111824)
       369811.05   3778376.63        0.00673  (07111824)               369852.96   3778354.56        0.00441  (05010524)
       369860.75   3778292.26        0.00597  (05010524)               369856.21   3778259.16        0.00584  (05120824)
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project        ***        10/25/12
                                   *** Operational School Bus PM10                                        ***        15:04:11
                                                                                                                     PAGE  21
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                          *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  ALL      ***
                             INCLUDING SOURCE(S):    L0000380    , L0000381    , L0000382    , L0000383    , L0000384    ,
                  L0000385    , L0000386    , L0000387    , L0000388    , L0000389    , L0000390    , L0000391    , L0000392    ,
                  L0000393    , L0000394    , L0000395    , L0000396    , L0000397    , L0000398    , L0000399    , L0000400    ,
                  L0000401    , L0000165    , L0000166    , L0000167    , L0000168    , L0000169    , L0000170    ,  . . .      ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                     ** CONC OF PM_10    IN MICROGRAMS/M**3                      **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       369670.52   3778388.27        0.01182  (07112024)               369686.20   3778352.98        0.01175  (07111724)
       369701.74   3778534.95        0.00482  (06112424)               369684.96   3778565.24        0.00574  (07111724)
       369709.39   3778565.24        0.00353  (06112424)               369733.82   3778565.24        0.00278  (07111124)
       369760.43   3778565.24        0.00229  (07122024)               369684.96   3778627.64        0.00411  (07111724)
       369709.39   3778627.64        0.00277  (05010124)               369733.82   3778627.64        0.00223  (05010124)
       369760.43   3778627.64        0.00184  (05010124)               369684.56   3778740.79        0.00399  (07111124)
       369708.99   3778740.79        0.00225  (05010124)               369733.42   3778740.79        0.00172  (05010124)
       369760.02   3778740.79        0.00141  (05010124)               369684.59   3778685.54        0.00401  (07111124)
       369709.02   3778685.54        0.00248  (05010124)               369733.45   3778685.54        0.00195  (05010124)
       369760.06   3778685.54        0.00161  (05010124)               369810.59   3778741.35        0.00101  (05010124)
       369828.20   3778628.60        0.00128  (07111124)               369866.96   3778657.96        0.00106  (07113024)
       369904.54   3778679.10        0.00099  (07111824)               369858.74   3778708.37        0.00095  (07111124)
       369905.71   3778639.08        0.00115  (07111824)               369885.75   3778619.11        0.00123  (07111824)
       369638.62   3778030.06        0.00129  (07010824)               369698.03   3778231.80        0.00352  (05010224)
       369682.83   3778161.33        0.00261  (05021624)               369653.81   3778099.15        0.00181  (07010824)
       369666.25   3778059.08        0.00181  (05120424)               369722.90   3778230.42        0.00445  (05010224)
       369715.99   3778190.35        0.00279  (05010224)               369703.56   3778158.57        0.00276  (06010524)
       369686.98   3778126.79        0.00251  (05021624)               369675.92   3778097.77        0.00220  (05021624)
       369703.56   3778108.82        0.00261  (06010524)               369727.05   3778139.22        0.00236  (06010524)
       369903.91   3778552.37        0.00150  (07111824)               369866.61   3778563.43        0.00156  (07111824)
       369873.52   3778516.45        0.00203  (07111824)               369887.33   3778491.57        0.00207  (07111124)
       369859.70   3778444.59        0.00298  (07111824)               369849.63   3778322.03        0.00639  (05010524)
       369643.37   3778672.46        0.00546  (07111724)               369644.15   3778798.32        0.00422  (07111724)
       369591.64   3778749.96        0.00179  (05121824)               369640.00   3778638.03        0.00627  (07111724)
       369590.26   3778698.83        0.00198  (06012424)               369569.53   3778751.34        0.00147  (06012424)
       369621.84   3778549.71        0.00378  (07010724)               369608.62   3778540.93        0.00357m (07121824)
       369491.97   3778688.07        0.00138m (07121824)               369551.43   3778498.04        0.00346  (07112024)
       369467.11   3778588.61        0.00191  (07112024)               369442.24   3778525.50        0.00231  (07112024)
       369426.94   3778653.64        0.00125m (07121824)               369430.77   3778596.26        0.00189  (07112024)
       369384.87   3778676.59        0.00102m (07121824)               369398.26   3778498.73        0.00152  (07112024)
       369245.26   3778531.24        0.00090  (07111724)               369245.26   3778441.35        0.00093  (07111724)
       369484.59   3778462.33        0.00238  (07112024)               369629.21   3778438.68        0.00328  (07010224)
       369814.80   3778308.83        0.00999  (05010524)               369781.29   3778368.86        0.00799  (07111824)
       369811.05   3778376.63        0.00673  (07111824)               369852.96   3778354.56        0.00441  (05010524)
       369860.75   3778292.26        0.00597  (05010524)               369856.21   3778259.16        0.00584  (05120824)
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project        ***        10/25/12
                                   *** Operational School Bus PM10                                        ***        15:04:11
                                                                                                                     PAGE  22
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   3 YEARS ***

                                 ** CONC OF PM_10    IN MICROGRAMS/M**3                      **

                                                                                                    NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PM10      1ST HIGHEST VALUE IS       0.00299 AT (  369814.80,  3778308.83,   242.46,   365.00,    0.00)  DC
           2ND HIGHEST VALUE IS       0.00295 AT (  369781.29,  3778368.86,   239.64,   365.00,    0.00)  DC
           3RD HIGHEST VALUE IS       0.00279 AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC
           4TH HIGHEST VALUE IS       0.00272 AT (  369686.20,  3778352.98,   240.37,   365.00,    0.00)  DC
           5TH HIGHEST VALUE IS       0.00226 AT (  369684.96,  3778565.24,   221.28,   365.00,    0.00)  DC
           6TH HIGHEST VALUE IS       0.00209 AT (  369640.00,  3778638.03,   216.15,   365.00,    0.00)  DC
           7TH HIGHEST VALUE IS       0.00188 AT (  369643.37,  3778672.46,   213.15,   365.00,    0.00)  DC
           8TH HIGHEST VALUE IS       0.00182 AT (  369701.74,  3778534.95,   224.77,   365.00,    0.00)  DC
           9TH HIGHEST VALUE IS       0.00169 AT (  369811.05,  3778376.63,   240.33,   365.00,    0.00)  DC
          10TH HIGHEST VALUE IS       0.00160 AT (  369684.96,  3778627.64,   216.12,   365.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS       0.00299 AT (  369814.80,  3778308.83,   242.46,   365.00,    0.00)  DC
           2ND HIGHEST VALUE IS       0.00295 AT (  369781.29,  3778368.86,   239.64,   365.00,    0.00)  DC
           3RD HIGHEST VALUE IS       0.00279 AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC
           4TH HIGHEST VALUE IS       0.00272 AT (  369686.20,  3778352.98,   240.37,   365.00,    0.00)  DC
           5TH HIGHEST VALUE IS       0.00226 AT (  369684.96,  3778565.24,   221.28,   365.00,    0.00)  DC
           6TH HIGHEST VALUE IS       0.00209 AT (  369640.00,  3778638.03,   216.15,   365.00,    0.00)  DC
           7TH HIGHEST VALUE IS       0.00188 AT (  369643.37,  3778672.46,   213.15,   365.00,    0.00)  DC
           8TH HIGHEST VALUE IS       0.00182 AT (  369701.74,  3778534.95,   224.77,   365.00,    0.00)  DC
           9TH HIGHEST VALUE IS       0.00169 AT (  369811.05,  3778376.63,   240.33,   365.00,    0.00)  DC
          10TH HIGHEST VALUE IS       0.00160 AT (  369684.96,  3778627.64,   216.12,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project        ***        10/25/12
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Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – PM_{10}

```
                                *** Operational School Bus PM10                                        ***        15:04:11
                                                                                                                  PAGE  23
 **MODELOPTs:  RegDFAULT CONC                                            ELEV      FLGPOL


                                          *** THE SUMMARY OF HIGHEST 24-HR RESULTS ***


                                  ** CONC OF PM_10    IN MICROGRAMS/M**3                        **

                                                    DATE                                                                NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PM10     HIGH   1ST HIGH VALUE IS       0.01182  ON 07112024: AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC

ALL      HIGH   1ST HIGH VALUE IS       0.01182  ON 07112024: AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Operational School Bus PM10                                        ***        15:04:11
                                                                                                                  PAGE  24
 **MODELOPTs:  RegDFAULT CONC                                            ELEV      FLGPOL


 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of          154 Informational Message(s)

 A Total of        26280 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          154 Missing Hours Identified (  0.59 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – $PM_{2.5}$

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 7.5.0
** Lakes Environmental Software Inc.
** Date: 10/25/2012
** File: J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\Construction\AERMOD\Operational\Bus PM2\Bus PM2.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Harvard Westlake Upper School Parking Infrastructure Project
   TITLETWO Operational School Bus PM2.5
   MODELOPT DFAULT CONC
   AVERTIME 24 ANNUAL
   URBANOPT 9862049
   POLLUTID PM_2.5
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "Bus PM2.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** Line Source represented by Separated Volume Sources
** ------------------------------------------------------------------------
** LINE Source ID = SLINE1
** DESCRSRC Bus Travel from SB on Coldwater Canyon from US-101
** Length of Side = 7.32
** Emission Rate = 0.000105
** Vertical Dimension = 5.00
** SZINIT = 2.33
** Nodes = 5
** 369659.17, 3778795.35, 213.00, 0.00, 6.60
** 369656.50, 3778635.36, 222.00, 0.00, 6.60
** 369659.17, 3778598.03, 222.00, 0.00, 6.60
** 369668.50, 3778550.03, 231.00, 0.00, 6.60
** 369672.50, 3778491.37, 240.00, 0.00, 6.60
** ------------------------------------------------------------------------
   LOCATION L0000442     VOLUME   369659.106 3778791.697 212.06
   LOCATION L0000443     VOLUME   369658.870 3778777.517 212.28
   LOCATION L0000444     VOLUME   369658.634 3778763.337 212.48
   LOCATION L0000445     VOLUME   369658.397 3778749.157 212.56
   LOCATION L0000446     VOLUME   369658.161 3778734.976 212.64
   LOCATION L0000447     VOLUME   369657.925 3778720.796 212.73
   LOCATION L0000448     VOLUME   369657.688 3778706.616 212.81
   LOCATION L0000449     VOLUME   369657.452 3778692.436 212.89
   LOCATION L0000450     VOLUME   369657.216 3778678.256 212.98
   LOCATION L0000451     VOLUME   369656.979 3778664.075 213.80
   LOCATION L0000452     VOLUME   369656.743 3778649.895 214.93
   LOCATION L0000453     VOLUME   369656.507 3778635.715 216.07
   LOCATION L0000454     VOLUME   369657.486 3778621.568 217.17
   LOCATION L0000455     VOLUME   369658.496 3778607.422 218.26
   LOCATION L0000456     VOLUME   369660.077 3778593.351 219.31
   LOCATION L0000457     VOLUME   369662.784 3778579.430 220.36
   LOCATION L0000458     VOLUME   369665.491 3778565.509 221.91
   LOCATION L0000459     VOLUME   369668.198 3778551.587 223.48
   LOCATION L0000460     VOLUME   369669.357 3778537.463 225.15
   LOCATION L0000461     VOLUME   369670.322 3778523.314 226.84
   LOCATION L0000462     VOLUME   369671.287 3778509.165 228.55
   LOCATION L0000463     VOLUME   369672.251 3778495.015 230.26
** End of Line Source
** Line Source represented by Separated Volume Sources
** ------------------------------------------------------------------------
** LINE Source ID = SLINE2
** DESCRSRC Bus Travel SB from Coldwater Canyon
** Length of Side = 7.32
** Emission Rate = 0.000315
** Vertical Dimension = 5.00
** SZINIT = 2.33
** Nodes = 6
** 369678.85, 3778478.78, 238.00, 0.00, 6.52
** 369680.18, 3778462.79, 238.00, 0.00, 6.52
** 369722.85, 3778362.79, 243.00, 0.00, 6.52
** 369765.51, 3778304.12, 243.00, 0.00, 6.52
** 369774.85, 3778292.12, 243.00, 0.00, 6.52
** 369786.85, 3778261.46, 243.00, 0.00, 6.52
** ------------------------------------------------------------------------
   LOCATION L0000424     VOLUME   369679.153 3778475.140 232.08
   LOCATION L0000425     VOLUME   369680.815 3778461.304 233.16
   LOCATION L0000426     VOLUME   369686.312 3778448.420 234.09
   LOCATION L0000427     VOLUME   369691.809 3778435.537 235.00
   LOCATION L0000428     VOLUME   369697.306 3778422.653 235.94
   LOCATION L0000429     VOLUME   369702.803 3778409.769 236.92
   LOCATION L0000430     VOLUME   369708.301 3778396.885 237.93
   LOCATION L0000431     VOLUME   369713.798 3778384.001 238.61
   LOCATION L0000432     VOLUME   369719.295 3778371.117 239.23
   LOCATION L0000433     VOLUME   369725.761 3778358.783 239.81
   LOCATION L0000434     VOLUME   369734.000 3778347.455 240.30
   LOCATION L0000435     VOLUME   369742.239 3778336.126 240.76
   LOCATION L0000436     VOLUME   369750.478 3778324.798 241.20
   LOCATION L0000437     VOLUME   369758.717 3778313.469 241.61
   LOCATION L0000438     VOLUME   369767.019 3778302.188 242.04
   LOCATION L0000439     VOLUME   369775.305 3778290.953 242.25
   LOCATION L0000440     VOLUME   369780.409 3778277.908 242.42
   LOCATION L0000441     VOLUME   369785.514 3778264.864 242.58
** End of Line Source
   LOCATION AREA         AREA       369794.871  3778265.530      242.640
** DESCRSRC Bus South Lot
** Source Parameters **
```

```
   SRCPARAM L0000442     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000443     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000444     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000445     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000446     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000447     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000448     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000449     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000450     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000451     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000452     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000453     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000454     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000455     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000456     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000457     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000458     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000459     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000460     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000461     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000462     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000463     4.7727E-06      0.00      6.60      2.33
   SRCPARAM L0000424     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000425     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000426     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000427     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000428     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000429     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000430     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000431     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000432     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000433     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000434     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000435     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000436     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000437     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000438     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000439     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000440     0.0000175      0.00      6.52      2.33
   SRCPARAM L0000441     0.0000175      0.00      6.52      2.33
   SRCPARAM AREA         9.5475E-09     5.000    33.000    73.000   -27.850
   URBANSRC L0000442
   URBANSRC L0000443
   URBANSRC L0000444
   URBANSRC L0000445
   URBANSRC L0000446
   URBANSRC L0000447
   URBANSRC L0000448
   URBANSRC L0000449
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   URBANSRC L0000462
   URBANSRC L0000463
   URBANSRC L0000424
   URBANSRC L0000425
   URBANSRC L0000426
   URBANSRC L0000427
   URBANSRC L0000428
   URBANSRC L0000429
   URBANSRC L0000430
   URBANSRC L0000431
   URBANSRC L0000432
   URBANSRC L0000433
   URBANSRC L0000434
   URBANSRC L0000435
   URBANSRC L0000436
   URBANSRC L0000437
   URBANSRC L0000438
   URBANSRC L0000439
   URBANSRC L0000440
   URBANSRC L0000441
   URBANSRC AREA

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "PM2.5"
   EMISFACT L0000424     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000424     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000424     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000424     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000425     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000425     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000425     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000425     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000426     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000426     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000426     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000426     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000427     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000427     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000427     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000427     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000428     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000428     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000428     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000428     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000429     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000429     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000429     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000429     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000430     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000430     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000430     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000430     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – $PM_{2.5}$

```
EMISFACT L0000431     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000431     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000431     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000431     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000432     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000432     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000432     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
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EMISFACT L0000433     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000433     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000433     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000433     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000434     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000434     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000434     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000434     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000435     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000435     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000435     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000435     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000436     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000436     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000436     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000436     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000437     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000437     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000437     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000437     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000438     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000438     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000439     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000439     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
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EMISFACT L0000442     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000442     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000442     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000442     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000443     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000454     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000454     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000455     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
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EMISFACT L0000456     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000456     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000456     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000456     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000457     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000457     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000457     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000457     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000458     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000458     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000458     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000458     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000459     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000459     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000459     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000459     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000460     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000460     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000460     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000460     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000461     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000461     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000461     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000461     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000462     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000462     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000462     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000462     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000463     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000463     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000463     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000463     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP PM2.5    L0000442 L0000443 L0000444 L0000445 L0000446 L0000447
   SRCGROUP PM2.5    L0000448 L0000449 L0000450 L0000451 L0000452 L0000453
   SRCGROUP PM2.5    L0000454 L0000455 L0000456 L0000457 L0000458 L0000459
   SRCGROUP PM2.5    L0000460 L0000461 L0000462 L0000463 L0000424 L0000425
   SRCGROUP PM2.5    L0000426 L0000427 L0000428 L0000429 L0000430 L0000431
   SRCGROUP PM2.5    L0000432 L0000433 L0000434 L0000435 L0000436 L0000437
   SRCGROUP PM2.5    L0000438 L0000439 L0000440 L0000441 AREA
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Bus PM2.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC"
   PROFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL"
   SURFDATA 0 2005
   UAIRDATA 3190 2005
   PROFBASE 0.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST "BUS PM2.AD\24H1GALL.PLT"
   PLOTFILE 24 PM2.5 1ST "BUS PM2.AD\24H1G001.PLT"
   PLOTFILE ANNUAL ALL "BUS PM2.AD\AN00GALL.PLT"
   PLOTFILE ANNUAL PM2.5 "BUS PM2.AD\AN00G000.PLT"
   SUMMFILE "Bus PM2.sum"
OU FINISHED

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM2.5                                         ***        15:23:34
                                                                                                                      PAGE   1
 **MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                                       ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    41 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay for URBAN/Non-SO2.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Model Accepts FLAGPOLE Receptor Heights.

 **Model Calculates  1 Short Term Average(s) of:  24-HR
     and Calculates ANNUAL Averages

 **This Run Includes:     41 Source(s);       2 Source Group(s); and      70 Receptor(s)

 **The Model Assumes A Pollutant Type of:  PM_2.5
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – $PM_{2.5}$

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
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) = 0.00 ; 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 = 3.5 MB of RAM.

**Detailed Error/Message File: Bus PM2.err
**File for Summary of Results: Bus PM2.sum

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus PM2.5 *** 15:23:34
PAGE 2

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000442	0	0.47727E-05	369659.1	3778791.7	212.1	0.00	6.60	2.33	YES	HROFDY
L0000443	0	0.47727E-05	369658.9	3778777.5	212.3	0.00	6.60	2.33	YES	HROFDY
L0000444	0	0.47727E-05	369658.6	3778763.3	212.5	0.00	6.60	2.33	YES	HROFDY
L0000445	0	0.47727E-05	369658.4	3778749.2	212.6	0.00	6.60	2.33	YES	HROFDY
L0000446	0	0.47727E-05	369658.2	3778735.0	212.6	0.00	6.60	2.33	YES	HROFDY
L0000447	0	0.47727E-05	369657.9	3778720.8	212.7	0.00	6.60	2.33	YES	HROFDY
L0000448	0	0.47727E-05	369657.7	3778706.6	212.8	0.00	6.60	2.33	YES	HROFDY
L0000449	0	0.47727E-05	369657.5	3778692.4	212.9	0.00	6.60	2.33	YES	HROFDY
L0000450	0	0.47727E-05	369657.2	3778678.3	213.0	0.00	6.60	2.33	YES	HROFDY
L0000451	0	0.47727E-05	369657.0	3778664.1	213.8	0.00	6.60	2.33	YES	HROFDY
L0000452	0	0.47727E-05	369656.7	3778649.9	214.9	0.00	6.60	2.33	YES	HROFDY
L0000453	0	0.47727E-05	369656.5	3778635.7	216.1	0.00	6.60	2.33	YES	HROFDY
L0000454	0	0.47727E-05	369657.5	3778621.6	217.2	0.00	6.60	2.33	YES	HROFDY
L0000455	0	0.47727E-05	369658.5	3778607.4	218.3	0.00	6.60	2.33	YES	HROFDY
L0000456	0	0.47727E-05	369660.1	3778593.4	219.3	0.00	6.60	2.33	YES	HROFDY
L0000457	0	0.47727E-05	369662.8	3778579.4	220.4	0.00	6.60	2.33	YES	HROFDY
L0000458	0	0.47727E-05	369665.5	3778565.5	221.9	0.00	6.60	2.33	YES	HROFDY
L0000459	0	0.47727E-05	369668.2	3778551.6	223.5	0.00	6.60	2.33	YES	HROFDY
L0000460	0	0.47727E-05	369669.4	3778537.5	225.2	0.00	6.60	2.33	YES	HROFDY
L0000461	0	0.47727E-05	369670.3	3778523.3	226.8	0.00	6.60	2.33	YES	HROFDY
L0000462	0	0.47727E-05	369671.3	3778509.2	228.6	0.00	6.60	2.33	YES	HROFDY
L0000463	0	0.47727E-05	369672.3	3778495.0	230.3	0.00	6.60	2.33	YES	HROFDY
L0000424	0	0.17500E-04	369679.2	3778475.1	232.1	0.00	6.52	2.33	YES	HROFDY
L0000425	0	0.17500E-04	369680.8	3778461.3	233.2	0.00	6.52	2.33	YES	HROFDY
L0000426	0	0.17500E-04	369686.3	3778448.4	234.1	0.00	6.52	2.33	YES	HROFDY
L0000427	0	0.17500E-04	369691.8	3778435.5	235.0	0.00	6.52	2.33	YES	HROFDY
L0000428	0	0.17500E-04	369697.3	3778422.7	235.9	0.00	6.52	2.33	YES	HROFDY
L0000429	0	0.17500E-04	369702.8	3778409.8	236.9	0.00	6.52	2.33	YES	HROFDY
L0000430	0	0.17500E-04	369708.3	3778396.9	237.9	0.00	6.52	2.33	YES	HROFDY
L0000431	0	0.17500E-04	369713.8	3778384.0	238.6	0.00	6.52	2.33	YES	HROFDY
L0000432	0	0.17500E-04	369719.3	3778371.1	239.2	0.00	6.52	2.33	YES	HROFDY
L0000433	0	0.17500E-04	369725.8	3778358.8	239.8	0.00	6.52	2.33	YES	HROFDY
L0000434	0	0.17500E-04	369734.0	3778347.5	240.3	0.00	6.52	2.33	YES	HROFDY
L0000435	0	0.17500E-04	369742.2	3778336.1	240.8	0.00	6.52	2.33	YES	HROFDY
L0000436	0	0.17500E-04	369750.5	3778324.8	241.2	0.00	6.52	2.33	YES	HROFDY
L0000437	0	0.17500E-04	369758.7	3778313.5	241.6	0.00	6.52	2.33	YES	HROFDY
L0000438	0	0.17500E-04	369767.0	3778302.2	242.0	0.00	6.52	2.33	YES	HROFDY
L0000439	0	0.17500E-04	369775.3	3778291.0	242.2	0.00	6.52	2.33	YES	HROFDY
L0000440	0	0.17500E-04	369780.4	3778277.9	242.4	0.00	6.52	2.33	YES	HROFDY
L0000441	0	0.17500E-04	369785.5	3778264.9	242.6	0.00	6.52	2.33	YES	HROFDY

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus PM2.5 *** 15:23:34
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	COORD (SW CORNER) Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
AREA	0	0.95475E-08	369794.9	3778265.5	242.6	5.00	33.00	73.00	-27.85	0.00	YES	HROFDY

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus PM2.5 *** 15:23:34
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs							
PM2.5	L0000442	, L0000443	, L0000444	, L0000445	, L0000446	, L0000447	, L0000448	, L0000449 ,
	L0000450	, L0000451	, L0000452	, L0000453	, L0000454	, L0000455	, L0000456	, L0000457 ,
	L0000458	, L0000459	, L0000460	, L0000461	, L0000462	, L0000463	, L0000424	, L0000425 ,
	L0000426	, L0000427	, L0000428	, L0000429	, L0000430	, L0000431	, L0000432	, L0000433 ,
	L0000434	, L0000435	, L0000436	, L0000437	, L0000438	, L0000439	, L0000440	, L0000441 ,
	AREA ,							

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – $PM_{2.5}$

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 ALL       L0000442    , L0000443    , L0000444    , L0000445    , L0000446    , L0000447    , L0000448    , L0000449    ,
           L0000450    , L0000451    , L0000452    , L0000453    , L0000454    , L0000455    , L0000456    , L0000457    ,
           L0000458    , L0000459    , L0000460    , L0000461    , L0000462    , L0000463    , L0000424    , L0000425    ,
           L0000426    , L0000427    , L0000428    , L0000429    , L0000430    , L0000431    , L0000432    , L0000433    ,
           L0000434    , L0000435    , L0000436    , L0000437    , L0000438    , L0000439    , L0000440    , L0000441    ,
           AREA        ,
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                 *** Operational School Bus PM2.5                                         ***        15:23:34
                                                                                                                     PAGE    5
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000442     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000443     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000444     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000445     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000446     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                 *** Operational School Bus PM2.5                                         ***        15:23:34
                                                                                                                     PAGE    6
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000447     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000448     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000449     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000450     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000451     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                 *** Operational School Bus PM2.5                                         ***        15:23:34
                                                                                                                     PAGE    7
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – $PM_{2.5}$

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    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000452     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000453     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000454     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000455     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000456     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM2.5                                        ***        15:23:34
                                                                                                                     PAGE   8
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000457     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000458     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000459     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000460     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000461     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM2.5                                        ***        15:23:34
                                                                                                                     PAGE   9
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000462     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000463     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000424     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
```

```
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000425     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000426     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM2.5                                        ***        15:23:34
                                                                                                                     PAGE  10
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000427     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000428     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000429     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000430     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000431     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM2.5                                        ***        15:23:34
                                                                                                                     PAGE  11
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000432     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000433     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000434     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000435     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000436     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus PM2.5                                        ***        15:23:34
                                                                                                                     PAGE  12
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL
```

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0000437 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000438 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000439 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000440 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000441 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = AREA ; SOURCE TYPE = AREA :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(369670.5,	3778388.3,	238.9,	365.0,	0.0);	(369686.2,	3778353.0,	240.4,	365.0,	0.0);
(369701.7,	3778534.9,	224.8,	365.0,	0.0);	(369685.0,	3778565.2,	221.3,	365.0,	0.0);
(369709.4,	3778565.2,	220.8,	365.0,	0.0);	(369733.8,	3778565.2,	220.3,	365.0,	0.0);
(369760.4,	3778565.2,	219.9,	365.0,	0.0);	(369685.0,	3778627.6,	216.1,	365.0,	0.0);
(369709.4,	3778627.6,	215.9,	365.0,	0.0);	(369733.8,	3778627.6,	215.7,	365.0,	0.0);
(369760.4,	3778627.6,	215.5,	365.0,	0.0);	(369684.6,	3778740.8,	212.4,	365.0,	0.0);
(369709.0,	3778740.8,	212.3,	365.0,	0.0);	(369733.4,	3778740.8,	212.3,	365.0,	0.0);
(369760.0,	3778740.8,	212.3,	365.0,	0.0);	(369684.6,	3778685.5,	212.9,	365.0,	0.0);
(369709.0,	3778685.5,	212.9,	365.0,	0.0);	(369733.5,	3778685.5,	212.9,	365.0,	0.0);
(369760.1,	3778685.5,	212.9,	365.0,	0.0);	(369810.6,	3778741.3,	212.1,	365.0,	0.0);
(369828.2,	3778628.6,	214.6,	365.0,	0.0);	(369867.0,	3778658.0,	212.8,	365.0,	0.0);
(369904.5,	3778679.1,	212.0,	365.0,	0.0);	(369858.7,	3778708.4,	212.0,	365.0,	0.0);
(369905.7,	3778639.1,	214.2,	365.0,	0.0);	(369885.8,	3778619.1,	215.4,	365.0,	0.0);
(369638.6,	3778030.1,	269.3,	365.0,	0.0);	(369698.0,	3778231.8,	243.0,	365.0,	0.0);
(369682.8,	3778161.3,	247.8,	365.0,	0.0);	(369653.8,	3778099.1,	252.5,	365.0,	0.0);
(369666.2,	3778059.1,	259.1,	365.0,	0.0);	(369722.9,	3778230.4,	242.9,	365.0,	0.0);
(369716.0,	3778190.3,	244.4,	365.0,	0.0);	(369703.6,	3778158.6,	247.2,	365.0,	0.0);
(369687.0,	3778126.8,	251.1,	365.0,	0.0);	(369675.9,	3778097.8,	253.5,	365.0,	0.0);
(369703.6,	3778108.8,	251.0,	365.0,	0.0);	(369727.0,	3778139.2,	247.0,	365.0,	0.0);
(369903.9,	3778552.4,	223.0,	365.0,	0.0);	(369866.6,	3778563.4,	219.9,	365.0,	0.0);
(369873.5,	3778516.4,	227.5,	365.0,	0.0);	(369887.3,	3778491.6,	232.5,	304.0,	0.0);
(369859.7,	3778444.6,	236.3,	304.0,	0.0);	(369849.6,	3778322.0,	243.9,	365.0,	0.0);
(369643.4,	3778672.5,	213.2,	365.0,	0.0);	(369644.1,	3778798.3,	212.1,	365.0,	0.0);
(369591.6,	3778750.0,	213.4,	365.0,	0.0);	(369640.0,	3778638.0,	216.2,	365.0,	0.0);
(369590.3,	3778698.8,	214.8,	365.0,	0.0);	(369569.5,	3778751.3,	213.8,	365.0,	0.0);
(369621.8,	3778549.7,	225.0,	365.0,	0.0);	(369608.6,	3778540.9,	226.6,	365.0,	0.0);
(369492.0,	3778688.1,	228.6,	365.0,	0.0);	(369551.4,	3778498.0,	236.0,	365.0,	0.0);
(369467.1,	3778588.6,	240.7,	365.0,	0.0);	(369442.2,	3778525.5,	243.2,	365.0,	0.0);
(369426.9,	3778653.6,	236.6,	365.0,	0.0);	(369430.8,	3778596.3,	241.5,	365.0,	0.0);
(369384.9,	3778676.6,	233.1,	365.0,	0.0);	(369398.3,	3778498.7,	243.2,	365.0,	0.0);
(369245.3,	3778531.2,	233.6,	365.0,	0.0);	(369245.3,	3778441.3,	240.3,	365.0,	0.0);
(369484.6,	3778462.3,	244.4,	365.0,	0.0);	(369629.2,	3778438.7,	235.7,	365.0,	17.4);
(369814.8,	3778308.8,	242.5,	365.0,	0.0);	(369781.3,	3778368.9,	239.6,	365.0,	0.0);
(369811.0,	3778376.6,	240.3,	365.0,	0.0);	(369853.0,	3778354.6,	243.2,	304.0,	0.0);
(369860.8,	3778292.3,	246.5,	304.0,	0.0);	(369856.2,	3778259.2,	245.7,	365.0,	0.0);

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000450	369643.4	3778672.5	0.82

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC Met Version: 11059
Profile file: L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2005 Year: 2005

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
05	01	01	1	01	-1.5	0.047	-9.000	-9.000	-999.	24.	6.3	0.63	1.00	1.00	0.70	285.	12.2	279.9	8.5
05	01	01	1	02	-1.7	0.054	-9.000	-9.000	-999.	29.	8.3	0.63	1.00	1.00	0.80	278.	12.2	279.9	8.5
05	01	01	1	03	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	335.	12.2	279.2	8.5
05	01	01	1	04	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	291.	12.2	278.8	8.5
05	01	01	1	05	-2.1	0.061	-9.000	-9.000	-999.	34.	9.4	0.63	1.00	1.00	0.90	334.	12.2	278.1	8.5
05	01	01	1	06	-0.9	0.040	-9.000	-9.000	-999.	19.	6.2	0.63	1.00	1.00	0.60	309.	12.2	278.8	8.5
05	01	01	1	07	-1.3	0.047	-9.000	-9.000	-999.	24.	7.3	0.63	1.00	1.00	0.70	312.	12.2	278.8	8.5
05	01	01	1	08	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	0.56	0.60	256.	12.2	279.2	8.5
05	01	01	1	09	20.5	0.177	0.303	0.005	48.	171.	-23.9	0.63	1.00	0.33	1.00	298.	12.2	282.5	8.5
05	01	01	1	10	52.6	0.184	1.005	0.005	684.	181.	-10.4	0.63	1.00	0.25	0.90	103.	12.2	286.4	8.5
05	01	01	1	11	109.2	0.376	1.415	0.006	920.	529.	-42.9	0.63	1.00	0.22	2.30	136.	12.2	287.0	8.5
05	01	01	1	12	27.8	0.303	0.917	0.007	980.	386.	-88.5	0.63	1.00	0.21	2.00	152.	12.2	287.0	8.5
05	01	01	1	13	27.2	0.255	0.927	0.007	1037.	297.	-53.9	0.63	1.00	0.21	1.60	187.	12.2	285.9	8.5
05	01	01	1	14	22.9	0.227	0.899	0.008	1123.	249.	-45.2	0.63	1.00	0.22	1.40	156.	12.2	287.0	8.5
05	01	01	1	15	13.9	0.218	0.774	0.009	1179.	234.	-66.0	0.63	1.00	0.26	1.40	192.	12.2	286.4	8.5
05	01	01	1	16	1.5	0.234	0.373	0.009	1183.	260.	-729.3	0.63	1.00	0.34	1.70	188.	12.2	285.9	8.5
05	01	01	1	17	-3.6	0.088	-9.000	-9.000	-999.	77.	16.6	0.63	1.00	0.61	1.30	200.	12.2	285.4	8.5
05	01	01	1	18	-1.8	0.061	-9.000	-9.000	-999.	34.	11.0	0.63	1.00	1.00	0.90	162.	12.2	284.9	8.5
05	01	01	1	19	-1.1	0.047	-9.000	-9.000	-999.	24.	8.6	0.63	1.00	1.00	0.70	176.	12.2	284.9	8.5
05	01	01	1	20	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	210.	12.2	284.2	8.5
05	01	01	1	21	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	236.	12.2	284.2	8.5
05	01	01	1	22	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	272.	12.2	283.8	8.5
05	01	01	1	23	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	251.	12.2	283.1	8.5
05	01	01	1	24	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	301.	12.2	282.5	8.5

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
05	01	01	01	8.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
05	01	01	01	12.2	1	285.	0.70	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: PM2.5 ***
INCLUDING SOURCE(S): L0000442 , L0000443 , L0000444 , L0000445 , L0000446 ,
L0000447 , L0000448 , L0000449 , L0000450 , L0000451 , L0000452 , L0000453 , L0000454 ,
L0000455 , L0000456 , L0000457 , L0000458 , L0000459 , L0000460 , L0000461 , L0000462 ,
L0000463 , L0000424 , L0000425 , L0000426 , L0000427 , L0000428 , L0000429 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
369670.52	3778388.27	0.00256	369686.20	3778352.98	0.00250
369701.74	3778534.95	0.00167	369684.96	3778565.24	0.00209
369709.39	3778565.24	0.00118	369733.82	3778565.24	0.00086
369760.43	3778565.24	0.00067	369684.96	3778627.64	0.00147
369709.39	3778627.64	0.00089	369733.82	3778627.64	0.00066
369760.43	3778627.64	0.00051	369684.56	3778740.79	0.00137
369708.99	3778740.79	0.00072	369733.42	3778740.79	0.00049
369760.02	3778740.79	0.00036	369684.59	3778685.54	0.00142
369709.02	3778685.54	0.00080	369733.45	3778685.54	0.00057
369760.06	3778685.54	0.00043	369810.59	3778741.35	0.00024
369828.20	3778628.60	0.00031	369866.96	3778657.96	0.00022

369904.54	3778679.10	0.00017	369858.74	3778708.37	0.00020
369905.71	3778639.08	0.00019	369885.75	3778619.11	0.00023
369638.62	3778030.06	0.00003	369698.03	3778231.80	0.00049
369682.83	3778161.33	0.00018	369653.81	3778099.15	0.00008
369666.25	3778059.08	0.00005	369722.90	3778230.42	0.00064
369715.99	3778190.35	0.00031	369703.56	3778158.57	0.00019
369686.98	3778126.79	0.00012	369675.92	3778097.77	0.00009
369703.56	3778108.82	0.00011	369727.05	3778139.22	0.00017
369903.91	3778552.37	0.00026	369866.61	3778563.43	0.00031
369873.52	3778516.45	0.00037	369887.33	3778491.57	0.00037
369859.70	3778444.59	0.00057	369849.63	3778322.03	0.00118
369643.37	3778672.46	0.00174	369644.15	3778798.32	0.00131
369591.64	3778749.96	0.00045	369640.00	3778638.03	0.00193
369590.26	3778698.83	0.00049	369569.53	3778751.34	0.00033
369621.84	3778549.71	0.00093	369608.62	3778540.93	0.00075
369491.97	3778688.07	0.00018	369551.43	3778498.04	0.00042
369467.11	3778588.61	0.00018	369442.24	3778525.50	0.00016
369426.94	3778653.64	0.00013	369430.77	3778596.26	0.00014
369384.87	3778676.59	0.00011	369398.26	3778498.73	0.00013
369245.26	3778531.24	0.00007	369245.26	3778441.35	0.00006
369484.59	3778462.33	0.00021	369629.21	3778438.68	0.00048
369814.80	3778308.83	0.00281	369781.29	3778368.86	0.00273
369811.05	3778376.63	0.00157	369852.96	3778354.56	0.00096
369860.75	3778292.26	0.00099	369856.21	3778259.16	0.00092

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000442 , L0000443 , L0000444 , L0000445 , L0000446 ,
L0000447 , L0000448 , L0000449 , L0000450 , L0000451 , L0000452 , L0000453 , L0000454 ,
L0000455 , L0000456 , L0000457 , L0000458 , L0000459 , L0000460 , L0000461 , L0000462 ,
L0000463 , L0000424 , L0000425 , L0000426 , L0000427 , L0000428 , L0000429 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
369670.52	3778388.27	0.00256	369686.20	3778352.98	0.00250
369701.74	3778534.95	0.00167	369684.96	3778565.24	0.00209
369709.39	3778565.24	0.00118	369733.82	3778565.24	0.00086
369760.43	3778565.24	0.00067	369684.96	3778627.64	0.00147
369709.39	3778627.64	0.00089	369733.82	3778627.64	0.00066
369760.43	3778627.64	0.00051	369684.56	3778740.79	0.00137
369708.99	3778740.79	0.00072	369733.42	3778740.79	0.00049
369760.02	3778740.79	0.00036	369684.59	3778685.54	0.00142
369709.02	3778685.54	0.00080	369733.45	3778685.54	0.00057
369760.06	3778685.54	0.00043	369810.59	3778741.35	0.00024
369828.20	3778628.60	0.00031	369866.96	3778657.96	0.00022
369904.54	3778679.10	0.00017	369858.74	3778708.37	0.00020
369905.71	3778639.08	0.00019	369885.75	3778619.11	0.00023
369638.62	3778030.06	0.00003	369698.03	3778231.80	0.00049
369682.83	3778161.33	0.00018	369653.81	3778099.15	0.00008
369666.25	3778059.08	0.00005	369722.90	3778230.42	0.00064
369715.99	3778190.35	0.00031	369703.56	3778158.57	0.00019
369686.98	3778126.79	0.00012	369675.92	3778097.77	0.00009
369703.56	3778108.82	0.00011	369727.05	3778139.22	0.00017
369903.91	3778552.37	0.00026	369866.61	3778563.43	0.00031
369873.52	3778516.45	0.00037	369887.33	3778491.57	0.00037
369859.70	3778444.59	0.00057	369849.63	3778322.03	0.00118
369643.37	3778672.46	0.00174	369644.15	3778798.32	0.00131
369591.64	3778749.96	0.00045	369640.00	3778638.03	0.00193
369590.26	3778698.83	0.00049	369569.53	3778751.34	0.00033
369621.84	3778549.71	0.00093	369608.62	3778540.93	0.00075
369491.97	3778688.07	0.00018	369551.43	3778498.04	0.00042
369467.11	3778588.61	0.00018	369442.24	3778525.50	0.00016
369426.94	3778653.64	0.00013	369430.77	3778596.26	0.00014
369384.87	3778676.59	0.00011	369398.26	3778498.73	0.00013
369245.26	3778531.24	0.00007	369245.26	3778441.35	0.00006
369484.59	3778462.33	0.00021	369629.21	3778438.68	0.00048
369814.80	3778308.83	0.00281	369781.29	3778368.86	0.00273
369811.05	3778376.63	0.00157	369852.96	3778354.56	0.00096
369860.75	3778292.26	0.00099	369856.21	3778259.16	0.00092

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM2.5 ***
INCLUDING SOURCE(S): L0000442 , L0000443 , L0000444 , L0000445 , L0000446 ,
L0000447 , L0000448 , L0000449 , L0000450 , L0000451 , L0000452 , L0000453 , L0000454 ,
L0000455 , L0000456 , L0000457 , L0000458 , L0000459 , L0000460 , L0000461 , L0000462 ,
L0000463 , L0000424 , L0000425 , L0000426 , L0000427 , L0000428 , L0000429 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.01094	(07112024)	369686.20	3778352.98	0.01091	(07111724)
369701.74	3778534.95	0.00444	(06112424)	369684.96	3778565.24	0.00528	(07111724)
369709.39	3778565.24	0.00326	(06112424)	369733.82	3778565.24	0.00256	(07111124)
369760.43	3778565.24	0.00211	(07122024)	369684.96	3778627.64	0.00378	(07111724)
369709.39	3778627.64	0.00255	(05010124)	369733.82	3778627.64	0.00205	(05010124)
369760.43	3778627.64	0.00169	(05010124)	369684.56	3778740.79	0.00368	(07111124)
369708.99	3778740.79	0.00207	(05010124)	369733.42	3778740.79	0.00159	(05010124)
369760.02	3778740.79	0.00130	(05010124)	369684.59	3778685.54	0.00369	(07111124)
369709.02	3778685.54	0.00228	(05010124)	369733.45	3778685.54	0.00180	(05010124)
369760.06	3778685.54	0.00148	(05010124)	369810.59	3778741.35	0.00093	(05010124)
369828.20	3778628.60	0.00117	(07111124)	369866.96	3778657.96	0.00098	(07113024)
369904.54	3778679.10	0.00093	(07111824)	369858.74	3778708.37	0.00087	(07111124)
369905.71	3778639.08	0.00108	(07111824)	369885.75	3778619.11	0.00115	(07111824)
369638.62	3778030.06	0.00119	(07010824)	369698.03	3778231.80	0.00330	(05010224)
369682.83	3778161.33	0.00240	(05021624)	369653.81	3778099.15	0.00166	(07010824)
369666.25	3778059.08	0.00167	(05120424)	369722.90	3778230.42	0.00418	(05010224)
369715.99	3778190.35	0.00263	(05010224)	369703.56	3778158.57	0.00254	(06010524)
369686.98	3778126.79	0.00231	(05021624)	369675.92	3778097.77	0.00202	(05021624)

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       369703.56   3778108.82        0.00240  (06010524)               369727.05   3778139.22        0.00218  (06010524)
       369903.91   3778552.37        0.00142  (07111824)               369866.61   3778563.43        0.00146  (07111824)
       369873.52   3778516.45        0.00192  (07111824)               369887.33   3778491.57        0.00195  (07111124)
       369859.70   3778444.59        0.00282  (07111824)               369849.63   3778322.03        0.00604  (05010524)
       369643.37   3778672.46        0.00503  (07111724)               369644.15   3778798.32        0.00388  (07111724)
       369591.64   3778749.96        0.00165  (05121824)               369640.00   3778638.03        0.00578  (07111724)
       369590.26   3778698.83        0.00183  (06012424)               369569.53   3778751.34        0.00136  (06012424)
       369621.84   3778549.71        0.00348  (07010724)               369608.62   3778540.93        0.00329m (07121824)
       369491.97   3778688.07        0.00127m (07121824)               369551.43   3778498.04        0.00320  (07112024)
       369467.11   3778588.61        0.00176  (07112024)               369442.24   3778525.50        0.00215  (07112024)
       369426.94   3778653.64        0.00115m (07121824)               369430.77   3778596.26        0.00175  (07112024)
       369384.87   3778676.59        0.00094m (07121824)               369398.26   3778498.73        0.00141  (07112024)
       369245.26   3778531.24        0.00084  (07111724)               369245.26   3778441.35        0.00087  (07111724)
       369484.59   3778462.33        0.00221  (07112024)               369629.21   3778438.68        0.00304  (07010224)
       369814.80   3778308.83        0.00938  (05010524)               369781.29   3778368.86        0.00741  (07111824)
       369811.05   3778376.63        0.00637  (07111824)               369852.96   3778354.56        0.00411  (05010524)
       369860.75   3778292.26        0.00564  (05010524)               369856.21   3778259.16        0.00551  (05120824)
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project        ***        10/25/12
                                   *** Operational School Bus PM2.5                                       ***        15:23:34
                                                                                                                     PAGE  21
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                          *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  ALL      ***
                             INCLUDING SOURCE(S):    L0000442    , L0000443    , L0000444    , L0000445    , L0000446    ,
                 L0000447    , L0000448    , L0000449    , L0000450    , L0000451    , L0000452    , L0000453    , L0000454    ,
                 L0000455    , L0000456    , L0000457    , L0000458    , L0000459    , L0000460    , L0000461    , L0000462    ,
                 L0000463    , L0000424    , L0000425    , L0000426    , L0000427    , L0000428    , L0000429    ,  . . .      ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                     ** CONC OF PM_2.5   IN MICROGRAMS/M**3                      **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       369670.52   3778388.27        0.01094  (07112024)               369686.20   3778352.98        0.01091  (07111724)
       369701.74   3778534.95        0.00444  (06112424)               369684.96   3778565.24        0.00528  (07111724)
       369709.39   3778565.24        0.00326  (06112424)               369733.82   3778565.24        0.00256  (07111124)
       369760.43   3778565.24        0.00211  (07122024)               369684.96   3778627.64        0.00378  (07111724)
       369709.39   3778627.64        0.00255  (05010124)               369733.82   3778627.64        0.00205  (05010124)
       369760.43   3778627.64        0.00169  (05010124)               369684.56   3778740.79        0.00368  (07111124)
       369708.99   3778740.79        0.00207  (05010124)               369733.42   3778740.79        0.00159  (05010124)
       369760.02   3778740.79        0.00130  (05010124)               369684.59   3778685.54        0.00369  (07111124)
       369709.02   3778685.54        0.00228  (05010124)               369733.45   3778685.54        0.00180  (05010124)
       369760.06   3778685.54        0.00148  (05010124)               369810.59   3778741.35        0.00093  (05010124)
       369828.20   3778628.60        0.00117  (07111124)               369866.96   3778657.96        0.00098  (07113024)
       369904.54   3778679.10        0.00093  (07111824)               369858.74   3778708.37        0.00087  (07111124)
       369905.71   3778639.08        0.00108  (07111824)               369885.75   3778619.11        0.00115  (07111824)
       369638.62   3778030.06        0.00119  (07010824)               369698.03   3778231.80        0.00330  (05010224)
       369682.83   3778161.33        0.00240  (05021624)               369653.81   3778099.15        0.00166  (07010824)
       369666.25   3778059.08        0.00167  (05120424)               369722.90   3778230.42        0.00418  (05010224)
       369715.99   3778190.35        0.00263  (05010224)               369703.56   3778158.57        0.00254  (06010524)
       369686.98   3778126.79        0.00231  (05021624)               369675.92   3778097.77        0.00202  (05021624)
       369703.56   3778108.82        0.00240  (06010524)               369727.05   3778139.22        0.00218  (06010524)
       369903.91   3778552.37        0.00142  (07111824)               369866.61   3778563.43        0.00146  (07111824)
       369873.52   3778516.45        0.00192  (07111824)               369887.33   3778491.57        0.00195  (07111124)
       369859.70   3778444.59        0.00282  (07111824)               369849.63   3778322.03        0.00604  (05010524)
       369643.37   3778672.46        0.00503  (07111724)               369644.15   3778798.32        0.00388  (07111724)
       369591.64   3778749.96        0.00165  (05121824)               369640.00   3778638.03        0.00578  (07111724)
       369590.26   3778698.83        0.00183  (06012424)               369569.53   3778751.34        0.00136  (06012424)
       369621.84   3778549.71        0.00348  (07010724)               369608.62   3778540.93        0.00329m (07121824)
       369491.97   3778688.07        0.00127m (07121824)               369551.43   3778498.04        0.00320  (07112024)
       369467.11   3778588.61        0.00176  (07112024)               369442.24   3778525.50        0.00215  (07112024)
       369426.94   3778653.64        0.00115m (07121824)               369430.77   3778596.26        0.00175  (07112024)
       369384.87   3778676.59        0.00094m (07121824)               369398.26   3778498.73        0.00141  (07112024)
       369245.26   3778531.24        0.00084  (07111724)               369245.26   3778441.35        0.00087  (07111724)
       369484.59   3778462.33        0.00221  (07112024)               369629.21   3778438.68        0.00304  (07010224)
       369814.80   3778308.83        0.00938  (05010524)               369781.29   3778368.86        0.00741  (07111824)
       369811.05   3778376.63        0.00637  (07111824)               369852.96   3778354.56        0.00411  (05010524)
       369860.75   3778292.26        0.00564  (05010524)               369856.21   3778259.16        0.00551  (05120824)
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project        ***        10/25/12
                                   *** Operational School Bus PM2.5                                       ***        15:23:34
                                                                                                                     PAGE  22
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   3 YEARS ***

                                 ** CONC OF PM_2.5   IN MICROGRAMS/M**3                      **

                                                                                                        NETWORK
GROUP ID                       AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

PM2.5     1ST HIGHEST VALUE IS       0.00281 AT (  369814.80,  3778308.83,   242.46,   365.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00273 AT (  369781.29,  3778368.86,   239.64,   365.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00256 AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00250 AT (  369686.20,  3778352.98,   240.37,   365.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00209 AT (  369684.96,  3778565.24,   221.28,   365.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00193 AT (  369640.00,  3778638.03,   216.15,   365.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00174 AT (  369643.37,  3778672.46,   213.15,   365.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00167 AT (  369701.74,  3778534.95,   224.77,   365.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00157 AT (  369811.05,  3778376.63,   240.33,   365.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00147 AT (  369684.96,  3778627.64,   216.12,   365.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS       0.00281 AT (  369814.80,  3778308.83,   242.46,   365.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00273 AT (  369781.29,  3778368.86,   239.64,   365.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00256 AT (  369670.52,  3778388.27,   238.88,   365.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00250 AT (  369686.20,  3778352.98,   240.37,   365.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00209 AT (  369684.96,  3778565.24,   221.28,   365.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00193 AT (  369640.00,  3778638.03,   216.15,   365.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00174 AT (  369643.37,  3778672.46,   213.15,   365.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00167 AT (  369701.74,  3778534.95,   224.77,   365.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00157 AT (  369811.05,  3778376.63,   240.33,   365.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00147 AT (  369684.96,  3778627.64,   216.12,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project        ***        10/25/12
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – $PM_{2.5}$

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
PM2.5	HIGH 1ST HIGH VALUE IS	0.01094	ON 07112024:	AT (369670.52, 3778388.27, 238.88, 365.00, 0.00)	DC	
ALL	HIGH 1ST HIGH VALUE IS	0.01094	ON 07112024:	AT (369670.52, 3778388.27, 238.88, 365.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 154 Informational Message(s)

A Total of 26280 Hours Were Processed

A Total of 0 Calm Hours Identified

A Total of 154 Missing Hours Identified (0.59 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** AERMOD Finishes Successfully ***
****

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – NO_2

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 7.5.0
** Lakes Environmental Software Inc.
** Date: 10/25/2012
** File: J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\Construction\AERMOD\Operational\Bus NO2\Bus NO2.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Harvard Westlake Upper School Parking Infrastructure Project
   TITLETWO Operational School Bus NO2
   MODELOPT DFAULT CONC
   AVERTIME 1
   URBANOPT 9862049
   POLLUTID NO2
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "Bus NO2.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** Line Source represented by Separated Volume Sources
** ------------------------------------------------------------------------
** LINE Source ID = SLINE1
** DESCRSRC Bus Travel from SB on Coldwater Canyon from US-101
** Length of Side = 7.32
** Emission Rate = 0.000993
** Vertical Dimension = 5.00
** SZINIT = 2.33
** Nodes = 5
** 369659.17, 3778795.35, 213.00, 0.00, 6.60
** 369656.50, 3778635.36, 222.00, 0.00, 6.60
** 369659.17, 3778598.03, 222.00, 0.00, 6.60
** 369668.50, 3778550.03, 231.00, 0.00, 6.60
** 369672.50, 3778491.37, 240.00, 0.00, 6.60
** ------------------------------------------------------------------------
   LOCATION L0000504     VOLUME   369659.106 3778791.697 212.06
   LOCATION L0000505     VOLUME   369658.870 3778777.517 212.28
   LOCATION L0000506     VOLUME   369658.634 3778763.337 212.48
   LOCATION L0000507     VOLUME   369658.397 3778749.157 212.56
   LOCATION L0000508     VOLUME   369658.161 3778734.976 212.64
   LOCATION L0000509     VOLUME   369657.925 3778720.796 212.73
   LOCATION L0000510     VOLUME   369657.688 3778706.616 212.81
   LOCATION L0000511     VOLUME   369657.452 3778692.436 212.89
   LOCATION L0000512     VOLUME   369657.216 3778678.256 212.98
   LOCATION L0000513     VOLUME   369656.979 3778664.075 213.80
   LOCATION L0000514     VOLUME   369656.743 3778649.895 214.93
   LOCATION L0000515     VOLUME   369656.507 3778635.715 216.07
   LOCATION L0000516     VOLUME   369657.486 3778621.568 217.17
   LOCATION L0000517     VOLUME   369658.496 3778607.422 218.26
   LOCATION L0000518     VOLUME   369660.077 3778593.351 219.31
   LOCATION L0000519     VOLUME   369662.784 3778579.430 220.36
   LOCATION L0000520     VOLUME   369665.491 3778565.509 221.91
   LOCATION L0000521     VOLUME   369668.198 3778551.587 223.48
   LOCATION L0000522     VOLUME   369669.357 3778537.463 225.15
   LOCATION L0000523     VOLUME   369670.322 3778523.314 226.84
   LOCATION L0000524     VOLUME   369671.287 3778509.165 228.55
   LOCATION L0000525     VOLUME   369672.251 3778495.015 230.26
** End of Line Source
** Line Source represented by Separated Volume Sources
** ------------------------------------------------------------------------
** LINE Source ID = SLINE2
** DESCRSRC Bus Travel NB from Coldwater Canyon
** Length of Side = 7.32
** Emission Rate = 0.00298
** Vertical Dimension = 5.00
** SZINIT = 2.33
** Nodes = 6
** 369678.85, 3778478.78, 238.00, 0.00, 6.52
** 369680.18, 3778462.79, 238.00, 0.00, 6.52
** 369722.85, 3778362.79, 243.00, 0.00, 6.52
** 369765.51, 3778304.12, 243.00, 0.00, 6.52
** 369774.85, 3778292.12, 243.00, 0.00, 6.52
** 369786.85, 3778261.46, 243.00, 0.00, 6.52
** ------------------------------------------------------------------------
   LOCATION L0000526     VOLUME   369679.153 3778475.140 232.08
   LOCATION L0000527     VOLUME   369680.815 3778461.304 233.16
   LOCATION L0000528     VOLUME   369686.312 3778448.420 234.09
   LOCATION L0000529     VOLUME   369691.809 3778435.537 235.00
   LOCATION L0000530     VOLUME   369697.306 3778422.653 235.94
   LOCATION L0000531     VOLUME   369702.803 3778409.769 236.92
   LOCATION L0000532     VOLUME   369708.301 3778396.885 237.93
   LOCATION L0000533     VOLUME   369713.798 3778384.001 238.61
   LOCATION L0000534     VOLUME   369719.295 3778371.117 239.23
   LOCATION L0000535     VOLUME   369725.761 3778358.783 239.81
   LOCATION L0000536     VOLUME   369734.000 3778347.455 240.30
   LOCATION L0000537     VOLUME   369742.239 3778336.126 240.76
   LOCATION L0000538     VOLUME   369750.478 3778324.798 241.20
   LOCATION L0000539     VOLUME   369758.717 3778313.469 241.61
   LOCATION L0000540     VOLUME   369767.019 3778302.188 242.04
   LOCATION L0000541     VOLUME   369775.305 3778290.953 242.25
   LOCATION L0000542     VOLUME   369780.409 3778277.908 242.42
   LOCATION L0000543     VOLUME   369785.514 3778264.864 242.58
** End of Line Source
   LOCATION AREA         AREA       369794.871  3778265.530      242.640
** DESCRSRC Bus South Lot
** Source Parameters **
```

```
   SRCPARAM L0000504     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000505     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000506     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000507     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000508     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000509     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000510     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000511     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000512     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000513     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000514     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000515     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000516     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000517     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000518     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000519     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000520     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000521     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000522     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000523     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000524     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000525     0.0000451364      0.00      6.60      2.33
   SRCPARAM L0000526     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000527     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000528     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000529     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000530     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000531     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000532     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000533     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000534     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000535     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000536     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000537     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000538     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000539     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000540     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000541     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000542     0.0001655556      0.00      6.52      2.33
   SRCPARAM L0000543     0.0001655556      0.00      6.52      2.33
   SRCPARAM AREA         2.7978E-07     5.000    33.000    73.000   -27.850
   URBANSRC L0000504
   URBANSRC L0000505
   URBANSRC L0000506
   URBANSRC L0000507
   URBANSRC L0000508
   URBANSRC L0000509
   URBANSRC L0000510
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   URBANSRC L0000539
   URBANSRC L0000540
   URBANSRC L0000541
   URBANSRC L0000542
   URBANSRC L0000543
   URBANSRC AREA

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "NO2"
   EMISFACT L0000526     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000526     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000526     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000526     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000527     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000527     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000527     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000527     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000528     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000528     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000528     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000528     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000529     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000529     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000529     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000529     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000530     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000530     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000530     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000530     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000531     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000531     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000531     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000531     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000532     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000532     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000532     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000532     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – NO_2

```
EMISFACT L0000533     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000533     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000533     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000533     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000534     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000534     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000534     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000534     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000535     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000535     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000535     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000535     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000536     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000536     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000536     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000536     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000537     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000537     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000537     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000537     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000538     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000538     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000538     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000538     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000539     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000539     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000539     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000539     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000540     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000540     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000540     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000540     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000541     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000541     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000541     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000541     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000542     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000520     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000520     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000521     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000521     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000521     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000521     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000522     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000522     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000522     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000522     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000523     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000524     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000525     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000525     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000525     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000525     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   CONCUNIT 531.5 GRAMS/SEC PPM
   SRCGROUP NO2       L0000504 L0000505 L0000506 L0000507 L0000508 L0000509
   SRCGROUP NO2       L0000510 L0000511 L0000512 L0000513 L0000514 L0000515
   SRCGROUP NO2       L0000516 L0000517 L0000518 L0000519 L0000520 L0000521
   SRCGROUP NO2       L0000522 L0000523 L0000524 L0000525 L0000526 L0000527
   SRCGROUP NO2       L0000528 L0000529 L0000530 L0000531 L0000532 L0000533
   SRCGROUP NO2       L0000534 L0000535 L0000536 L0000537 L0000538 L0000539
   SRCGROUP NO2       L0000540 L0000541 L0000542 L0000543 AREA
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Bus NO2.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC"
   PROFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL"
   SURFDATA 0 2005
   UAIRDATA 3190 2005
   PROFBASE 0.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "BUS NO2.AD\01H1GALL.PLT"
   PLOTFILE 1 NO2 1ST "BUS NO2.AD\01H1G001.PLT"
   SUMMFILE "Bus NO2.sum"
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus NO2                                           ***        15:46:59
                                                                                                                      PAGE   1
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                       ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    41 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay for URBAN/Non-SO2.
        6. Full Conversion Assumed for NO2.
        7. Urban Roughness Length of 1.0 Meter Assumed.

 **Model Accepts FLAGPOLE Receptor Heights.

 **Model Calculates  1 Short Term Average(s) of:   1-HR

 **This Run Includes:     41 Source(s);       2 Source Group(s); and      70 Receptor(s)

 **The Model Assumes A Pollutant Type of:  NO2

 **Note that special processing requirements apply for the 1-hour NO2 NAAQS - check available guidance.
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – NO_2

Model will process user-specified ranks of daily maximum 1-hour values averaged across the number of years modeled.
For annual NO2 NAAQS modeling, the multi-year maximum of PERIOD values can be simulated using the MULTYEAR keyword.
Multi-year PERIOD and 1-hour values should only be done in a single model run using the MULTYEAR option with a
single multi-year meteorological data file using STARTEND keyword.

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
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) = 0.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 531.50
Output Units = PPM

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Detailed Error/Message File: Bus NO2.err
**File for Summary of Results: Bus NO2.sum

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus NO2 *** 15:46:59
PAGE 2
**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000504	0	0.45136E-04	369659.1	3778791.7	212.1	0.00	6.60	2.33	YES	HROFDY
L0000505	0	0.45136E-04	369658.9	3778777.5	212.3	0.00	6.60	2.33	YES	HROFDY
L0000506	0	0.45136E-04	369658.6	3778763.3	212.5	0.00	6.60	2.33	YES	HROFDY
L0000507	0	0.45136E-04	369658.4	3778749.2	212.6	0.00	6.60	2.33	YES	HROFDY
L0000508	0	0.45136E-04	369658.2	3778735.0	212.6	0.00	6.60	2.33	YES	HROFDY
L0000509	0	0.45136E-04	369657.9	3778720.8	212.7	0.00	6.60	2.33	YES	HROFDY
L0000510	0	0.45136E-04	369657.7	3778706.6	212.8	0.00	6.60	2.33	YES	HROFDY
L0000511	0	0.45136E-04	369657.5	3778692.4	212.9	0.00	6.60	2.33	YES	HROFDY
L0000512	0	0.45136E-04	369657.2	3778678.3	213.0	0.00	6.60	2.33	YES	HROFDY
L0000513	0	0.45136E-04	369657.0	3778664.1	213.8	0.00	6.60	2.33	YES	HROFDY
L0000514	0	0.45136E-04	369656.7	3778649.9	214.9	0.00	6.60	2.33	YES	HROFDY
L0000515	0	0.45136E-04	369656.5	3778635.7	216.1	0.00	6.60	2.33	YES	HROFDY
L0000516	0	0.45136E-04	369657.5	3778621.6	217.2	0.00	6.60	2.33	YES	HROFDY
L0000517	0	0.45136E-04	369658.5	3778607.4	218.3	0.00	6.60	2.33	YES	HROFDY
L0000518	0	0.45136E-04	369660.1	3778593.4	219.3	0.00	6.60	2.33	YES	HROFDY
L0000519	0	0.45136E-04	369662.8	3778579.4	220.4	0.00	6.60	2.33	YES	HROFDY
L0000520	0	0.45136E-04	369665.5	3778565.5	221.9	0.00	6.60	2.33	YES	HROFDY
L0000521	0	0.45136E-04	369668.2	3778551.6	223.5	0.00	6.60	2.33	YES	HROFDY
L0000522	0	0.45136E-04	369669.4	3778537.5	225.2	0.00	6.60	2.33	YES	HROFDY
L0000523	0	0.45136E-04	369670.3	3778523.3	226.8	0.00	6.60	2.33	YES	HROFDY
L0000524	0	0.45136E-04	369671.3	3778509.2	228.6	0.00	6.60	2.33	YES	HROFDY
L0000525	0	0.45136E-04	369672.3	3778495.0	230.3	0.00	6.60	2.33	YES	HROFDY
L0000526	0	0.16556E-03	369679.2	3778475.1	232.1	0.00	6.52	2.33	YES	HROFDY
L0000527	0	0.16556E-03	369680.8	3778461.3	233.2	0.00	6.52	2.33	YES	HROFDY
L0000528	0	0.16556E-03	369686.3	3778448.4	234.1	0.00	6.52	2.33	YES	HROFDY
L0000529	0	0.16556E-03	369691.8	3778435.5	235.0	0.00	6.52	2.33	YES	HROFDY
L0000530	0	0.16556E-03	369697.3	3778422.7	235.9	0.00	6.52	2.33	YES	HROFDY
L0000531	0	0.16556E-03	369702.8	3778409.8	236.9	0.00	6.52	2.33	YES	HROFDY
L0000532	0	0.16556E-03	369708.3	3778396.9	237.9	0.00	6.52	2.33	YES	HROFDY
L0000533	0	0.16556E-03	369713.8	3778384.0	238.6	0.00	6.52	2.33	YES	HROFDY
L0000534	0	0.16556E-03	369719.3	3778371.1	239.2	0.00	6.52	2.33	YES	HROFDY
L0000535	0	0.16556E-03	369725.8	3778358.8	239.8	0.00	6.52	2.33	YES	HROFDY
L0000536	0	0.16556E-03	369734.0	3778347.5	240.3	0.00	6.52	2.33	YES	HROFDY
L0000537	0	0.16556E-03	369742.2	3778336.1	240.8	0.00	6.52	2.33	YES	HROFDY
L0000538	0	0.16556E-03	369750.5	3778324.8	241.2	0.00	6.52	2.33	YES	HROFDY
L0000539	0	0.16556E-03	369758.7	3778313.5	241.6	0.00	6.52	2.33	YES	HROFDY
L0000540	0	0.16556E-03	369767.0	3778302.2	242.0	0.00	6.52	2.33	YES	HROFDY
L0000541	0	0.16556E-03	369775.3	3778291.0	242.2	0.00	6.52	2.33	YES	HROFDY
L0000542	0	0.16556E-03	369780.4	3778277.9	242.4	0.00	6.52	2.33	YES	HROFDY
L0000543	0	0.16556E-03	369785.5	3778264.9	242.6	0.00	6.52	2.33	YES	HROFDY

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus NO2 *** 15:46:59
PAGE 3
**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
AREA	0	0.27978E-06	369794.9	3778265.5	242.6	5.00	33.00	73.00	-27.85	0.00	YES	HROFDY

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs							
NO2	L0000504	, L0000505	, L0000506	, L0000507	, L0000508	, L0000509	, L0000510	, L0000511 ,
	L0000512	, L0000513	, L0000514	, L0000515	, L0000516	, L0000517	, L0000518	, L0000519 ,
	L0000520	, L0000521	, L0000522	, L0000523	, L0000524	, L0000525	, L0000526	, L0000527 ,
	L0000528	, L0000529	, L0000530	, L0000531	, L0000532	, L0000533	, L0000534	, L0000535 ,

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           L0000536    , L0000537    , L0000538    , L0000539    , L0000540    , L0000541    , L0000542    , L0000543    ,

           AREA        ,

 ALL       L0000504    , L0000505    , L0000506    , L0000507    , L0000508    , L0000509    , L0000510    , L0000511    ,

           L0000512    , L0000513    , L0000514    , L0000515    , L0000516    , L0000517    , L0000518    , L0000519    ,

           L0000520    , L0000521    , L0000522    , L0000523    , L0000524    , L0000525    , L0000526    , L0000527    ,

           L0000528    , L0000529    , L0000530    , L0000531    , L0000532    , L0000533    , L0000534    , L0000535    ,

           L0000536    , L0000537    , L0000538    , L0000539    , L0000540    , L0000541    , L0000542    , L0000543    ,

           AREA        ,
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus NO2                                           ***        15:46:59
                                                                                                                      PAGE   5
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000504     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000505     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000506     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000507     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000508     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus NO2                                           ***        15:46:59
                                                                                                                      PAGE   6
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000509     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000510     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000511     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000512     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000513     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus NO2                                           ***        15:46:59
                                                                                                                      PAGE   7
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – NO_2

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0000514 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000515 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000516 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000517 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000518 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0000519 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000520 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000521 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000522 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000523 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0000524 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000525 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – NO_2

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SOURCE ID = L0000526     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000527     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000528     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus NO2                                           ***        15:46:59
                                                                                                                      PAGE  10
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000529     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000530     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000531     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000532     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000533     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus NO2                                           ***        15:46:59
                                                                                                                      PAGE  11
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000534     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000535     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000536     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000537     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000538     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – NO_2

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0000539 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000540 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000541 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000542 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000543 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = AREA ; SOURCE TYPE = AREA :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(369670.5,	3778388.3,	238.9,	365.0,	0.0);	(369686.2,	3778353.0,	240.4,	365.0,	0.0);
(369701.7,	3778534.9,	224.8,	365.0,	0.0);	(369685.0,	3778565.2,	221.3,	365.0,	0.0);
(369709.4,	3778565.2,	220.8,	365.0,	0.0);	(369733.8,	3778565.2,	220.3,	365.0,	0.0);
(369760.4,	3778565.2,	219.9,	365.0,	0.0);	(369685.0,	3778627.6,	216.1,	365.0,	0.0);
(369709.4,	3778627.6,	215.9,	365.0,	0.0);	(369733.8,	3778627.6,	215.7,	365.0,	0.0);
(369760.4,	3778627.6,	215.5,	365.0,	0.0);	(369684.6,	3778740.8,	212.4,	365.0,	0.0);
(369709.0,	3778740.8,	212.3,	365.0,	0.0);	(369733.4,	3778740.8,	212.3,	365.0,	0.0);
(369760.0,	3778740.8,	212.3,	365.0,	0.0);	(369684.6,	3778685.5,	212.9,	365.0,	0.0);
(369709.0,	3778685.5,	212.9,	365.0,	0.0);	(369733.5,	3778685.5,	212.9,	365.0,	0.0);
(369760.1,	3778685.5,	212.9,	365.0,	0.0);	(369810.6,	3778741.3,	212.1,	365.0,	0.0);
(369828.2,	3778628.6,	214.6,	365.0,	0.0);	(369867.0,	3778658.0,	212.8,	365.0,	0.0);
(369904.5,	3778679.1,	212.0,	365.0,	0.0);	(369858.7,	3778708.4,	212.0,	365.0,	0.0);
(369905.7,	3778639.1,	214.2,	365.0,	0.0);	(369885.8,	3778619.1,	215.4,	365.0,	0.0);
(369638.6,	3778030.1,	269.3,	365.0,	0.0);	(369698.0,	3778231.8,	243.0,	365.0,	0.0);
(369682.8,	3778161.3,	247.8,	365.0,	0.0);	(369653.8,	3778099.1,	252.5,	365.0,	0.0);
(369666.2,	3778059.1,	259.1,	365.0,	0.0);	(369722.9,	3778230.4,	242.9,	365.0,	0.0);
(369716.0,	3778190.3,	244.4,	365.0,	0.0);	(369703.6,	3778158.6,	247.2,	365.0,	0.0);
(369687.0,	3778126.8,	251.1,	365.0,	0.0);	(369675.9,	3778097.8,	253.5,	365.0,	0.0);
(369703.6,	3778108.8,	251.0,	365.0,	0.0);	(369727.0,	3778139.2,	247.0,	365.0,	0.0);
(369903.9,	3778552.4,	223.0,	365.0,	0.0);	(369866.6,	3778563.4,	219.9,	365.0,	0.0);
(369873.5,	3778516.4,	227.5,	365.0,	0.0);	(369887.3,	3778491.6,	232.5,	304.0,	0.0);
(369859.7,	3778444.6,	236.3,	304.0,	0.0);	(369849.6,	3778322.0,	243.9,	365.0,	0.0);
(369643.4,	3778672.5,	213.2,	365.0,	0.0);	(369644.1,	3778798.3,	212.1,	365.0,	0.0);
(369591.6,	3778750.0,	213.4,	365.0,	0.0);	(369640.0,	3778638.0,	216.2,	365.0,	0.0);
(369590.3,	3778698.8,	214.8,	365.0,	0.0);	(369569.5,	3778751.3,	213.8,	365.0,	0.0);
(369621.8,	3778549.7,	225.0,	365.0,	0.0);	(369608.6,	3778540.9,	226.6,	365.0,	0.0);
(369492.0,	3778688.1,	228.6,	365.0,	0.0);	(369551.4,	3778498.0,	236.0,	365.0,	0.0);
(369467.1,	3778588.6,	240.7,	365.0,	0.0);	(369442.2,	3778525.5,	243.2,	365.0,	0.0);
(369426.9,	3778653.6,	236.6,	365.0,	0.0);	(369430.8,	3778596.3,	241.5,	365.0,	0.0);
(369384.9,	3778676.6,	233.1,	365.0,	0.0);	(369398.3,	3778498.7,	243.2,	365.0,	0.0);
(369245.3,	3778531.2,	233.6,	365.0,	0.0);	(369245.3,	3778441.3,	240.3,	365.0,	0.0);
(369484.6,	3778462.3,	244.4,	365.0,	0.0);	(369629.2,	3778438.7,	235.7,	365.0,	17.4);
(369814.8,	3778308.8,	242.5,	365.0,	0.0);	(369781.3,	3778368.9,	239.6,	365.0,	0.0);
(369811.0,	3778376.6,	240.3,	365.0,	0.0);	(369853.0,	3778354.6,	243.2,	304.0,	0.0);
(369860.8,	3778292.3,	246.5,	304.0,	0.0);	(369856.2,	3778259.2,	245.7,	365.0,	0.0);

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

```
                      * 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)
                            - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

                         L0000512            369643.4     3778672.5             0.82
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Operational School Bus NO2                                           ***        15:46:59
                                                                                                                       PAGE  16
 **MODELOPTs:  RegDFAULT CONC                                             ELEV      FLGPOL

                                            *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,  10.80,
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Operational School Bus NO2                                           ***        15:46:59
                                                                                                                       PAGE  17
 **MODELOPTs:  RegDFAULT CONC                                             ELEV      FLGPOL

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC   Met Version:  11059
   Profile file:   L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL
   Surface format: FREE
   Profile format: FREE
   Surface station no.:        0                 Upper air station no.:     3190
                  Name: UNKNOWN                                Name: UNKNOWN
                  Year:   2005                                 Year:   2005

 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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 05 01 01   1 01   -1.5  0.047 -9.000 -9.000 -999.   24.      6.3  0.63   1.00   1.00    0.70  285.   12.2  279.9    8.5
 05 01 01   1 02   -1.7  0.054 -9.000 -9.000 -999.   29.      8.3  0.63   1.00   1.00    0.80  278.   12.2  279.9    8.5
 05 01 01   1 03   -2.0  0.054 -9.000 -9.000 -999.   29.      6.9  0.63   1.00   1.00    0.80  335.   12.2  279.2    8.5
 05 01 01   1 04   -2.0  0.054 -9.000 -9.000 -999.   29.      6.9  0.63   1.00   1.00    0.80  291.   12.2  278.8    8.5
 05 01 01   1 05   -2.1  0.061 -9.000 -9.000 -999.   34.      9.4  0.63   1.00   1.00    0.90  334.   12.2  278.1    8.5
 05 01 01   1 06   -0.9  0.040 -9.000 -9.000 -999.   19.      6.2  0.63   1.00   1.00    0.60  309.   12.2  278.8    8.5
 05 01 01   1 07   -1.3  0.047 -9.000 -9.000 -999.   24.      7.3  0.63   1.00   1.00    0.70  312.   12.2  278.8    8.5
 05 01 01   1 08   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   0.56    0.60  256.   12.2  279.2    8.5
 05 01 01   1 09   20.5  0.177  0.303  0.005   48.  171.    -23.9  0.63   1.00   0.33    1.00  298.   12.2  282.5    8.5
 05 01 01   1 10   52.6  0.184  1.005  0.005  684.  181.    -10.4  0.63   1.00   0.25    0.90  103.   12.2  286.4    8.5
 05 01 01   1 11  109.2  0.376  1.415  0.006  920.  529.    -42.9  0.63   1.00   0.22    2.30  136.   12.2  287.0    8.5
 05 01 01   1 12   27.8  0.303  0.917  0.007  980.  386.    -88.5  0.63   1.00   0.21    2.00  152.   12.2  287.0    8.5
 05 01 01   1 13   27.2  0.255  0.927  0.007 1037.  297.    -53.9  0.63   1.00   0.21    1.60  187.   12.2  285.9    8.5
 05 01 01   1 14   22.9  0.227  0.899  0.008 1123.  249.    -45.2  0.63   1.00   0.22    1.40  156.   12.2  287.0    8.5
 05 01 01   1 15   13.9  0.218  0.774  0.009 1179.  234.    -66.0  0.63   1.00   0.26    1.40  192.   12.2  286.4    8.5
 05 01 01   1 16    1.5  0.234  0.373  0.009 1183.  260.   -729.3  0.63   1.00   0.34    1.70  188.   12.2  285.9    8.5
 05 01 01   1 17   -3.6  0.088 -9.000 -9.000 -999.   77.     16.6  0.63   1.00   0.61    1.30  200.   12.2  285.4    8.5
 05 01 01   1 18   -1.8  0.061 -9.000 -9.000 -999.   34.     11.0  0.63   1.00   1.00    0.90  162.   12.2  284.9    8.5
 05 01 01   1 19   -1.1  0.047 -9.000 -9.000 -999.   24.      8.6  0.63   1.00   1.00    0.70  176.   12.2  284.9    8.5
 05 01 01   1 20   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  210.   12.2  284.2    8.5
 05 01 01   1 21   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  236.   12.2  284.2    8.5
 05 01 01   1 22   -0.9  0.040 -9.000 -9.000 -999.   19.      6.3  0.63   1.00   1.00    0.60  272.   12.2  283.8    8.5
 05 01 01   1 23   -0.9  0.040 -9.000 -9.000 -999.   19.      6.3  0.63   1.00   1.00    0.60  251.   12.2  283.1    8.5
 05 01 01   1 24   -0.8  0.040 -9.000 -9.000 -999.   19.      7.3  0.63   1.00   1.00    0.60  301.   12.2  282.5    8.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 05 01 01 01    8.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 05 01 01 01   12.2 1  285.    0.70  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                   *** Operational School Bus NO2                                           ***        15:46:59
                                                                                                                       PAGE  18
 **MODELOPTs:  RegDFAULT CONC                                             ELEV      FLGPOL


    *** THE   1ST-HIGHEST MAX DAILY 1-HR AVERAGE CONCENTRATION    VALUES AVERAGED OVER   3 YEARS FOR SOURCE GROUP: NO2      ***
                                  INCLUDING SOURCE(S):     L0000504    , L0000505    , L0000506    , L0000507    , L0000508    ,
                 L0000509    , L0000510    , L0000511    , L0000512    , L0000513    , L0000514    , L0000515    , L0000516    ,
                 L0000517    , L0000518    , L0000519    , L0000520    , L0000521    , L0000522    , L0000523    , L0000524    ,
                 L0000525    , L0000526    , L0000527    , L0000528    , L0000529    , L0000530    , L0000531    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF NO2      IN PPM                                     **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         369670.52    3778388.27        0.00104                      369686.20    3778352.98        0.00109
         369701.74    3778534.95        0.00040                      369684.96    3778565.24        0.00045
         369709.39    3778565.24        0.00029                      369733.82    3778565.24        0.00025
         369760.43    3778565.24        0.00021                      369684.96    3778627.64        0.00033
         369709.39    3778627.64        0.00022                      369733.82    3778627.64        0.00019
         369760.43    3778627.64        0.00017                      369684.56    3778740.79        0.00030
         369708.99    3778740.79        0.00018                      369733.42    3778740.79        0.00014
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – NO_2

369760.02	3778740.79	0.00012	369684.59	3778685.54	0.00032
369709.02	3778685.54	0.00020	369733.45	3778685.54	0.00016
369760.06	3778685.54	0.00014	369810.59	3778741.35	0.00010
369828.20	3778628.60	0.00013	369866.96	3778657.96	0.00011
369904.54	3778679.10	0.00011	369858.74	3778708.37	0.00010
369905.71	3778639.08	0.00013	369885.75	3778619.11	0.00014
369638.62	3778030.06	0.00011	369698.03	3778231.80	0.00038
369682.83	3778161.33	0.00028	369653.81	3778099.15	0.00018
369666.25	3778059.08	0.00019	369722.90	3778230.42	0.00048
369715.99	3778190.35	0.00035	369703.56	3778158.57	0.00029
369686.98	3778126.79	0.00027	369675.92	3778097.77	0.00023
369703.56	3778108.82	0.00028	369727.05	3778139.22	0.00029
369903.91	3778552.37	0.00019	369866.61	3778563.43	0.00018
369873.52	3778516.45	0.00025	369887.33	3778491.57	0.00028
369859.70	3778444.59	0.00041	369849.63	3778322.03	0.00085
369643.37	3778672.46	0.00043	369644.15	3778798.32	0.00034
369591.64	3778749.96	0.00019	369640.00	3778638.03	0.00049
369590.26	3778698.83	0.00021	369569.53	3778751.34	0.00016
369621.84	3778549.71	0.00033	369608.62	3778540.93	0.00033
369491.97	3778688.07	0.00013	369551.43	3778498.04	0.00030
369467.11	3778588.61	0.00017	369442.24	3778525.50	0.00021
369426.94	3778653.64	0.00011	369430.77	3778596.26	0.00017
369384.87	3778676.59	0.00010	369398.26	3778498.73	0.00016
369245.26	3778531.24	0.00009	369245.26	3778441.35	0.00011
369484.59	3778462.33	0.00024	369629.21	3778438.68	0.00031
369814.80	3778308.83	0.00109	369781.29	3778368.86	0.00095
369811.05	3778376.63	0.00092	369852.96	3778354.56	0.00065
369860.75	3778292.26	0.00079	369856.21	3778259.16	0.00086

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST-HIGHEST MAX DAILY 1-HR AVERAGE CONCENTRATION VALUES AVERAGED OVER 3 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000504 , L0000505 , L0000506 , L0000507 , L0000508 ,
L0000509 , L0000510 , L0000511 , L0000512 , L0000513 , L0000514 , L0000515 , L0000516 ,
L0000517 , L0000518 , L0000519 , L0000520 , L0000521 , L0000522 , L0000523 , L0000524 ,
L0000525 , L0000526 , L0000527 , L0000528 , L0000529 , L0000530 , L0000531 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NO2 IN PPM **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
369670.52	3778388.27	0.00104	369686.20	3778352.98	0.00109
369701.74	3778534.95	0.00040	369684.96	3778565.24	0.00045
369709.39	3778565.24	0.00029	369733.82	3778565.24	0.00025
369760.43	3778565.24	0.00021	369684.96	3778627.64	0.00033
369709.39	3778627.64	0.00022	369733.82	3778627.64	0.00019
369760.43	3778627.64	0.00017	369684.56	3778740.79	0.00030
369708.99	3778740.79	0.00018	369733.42	3778740.79	0.00014
369760.02	3778740.79	0.00012	369684.59	3778685.54	0.00032
369709.02	3778685.54	0.00020	369733.45	3778685.54	0.00016
369760.06	3778685.54	0.00014	369810.59	3778741.35	0.00010
369828.20	3778628.60	0.00013	369866.96	3778657.96	0.00011
369904.54	3778679.10	0.00011	369858.74	3778708.37	0.00010
369905.71	3778639.08	0.00013	369885.75	3778619.11	0.00014
369638.62	3778030.06	0.00011	369698.03	3778231.80	0.00038
369682.83	3778161.33	0.00028	369653.81	3778099.15	0.00018
369666.25	3778059.08	0.00019	369722.90	3778230.42	0.00048
369715.99	3778190.35	0.00035	369703.56	3778158.57	0.00029
369686.98	3778126.79	0.00027	369675.92	3778097.77	0.00023
369703.56	3778108.82	0.00028	369727.05	3778139.22	0.00029
369903.91	3778552.37	0.00019	369866.61	3778563.43	0.00018
369873.52	3778516.45	0.00025	369887.33	3778491.57	0.00028
369859.70	3778444.59	0.00041	369849.63	3778322.03	0.00085
369643.37	3778672.46	0.00043	369644.15	3778798.32	0.00034
369591.64	3778749.96	0.00019	369640.00	3778638.03	0.00049
369590.26	3778698.83	0.00021	369569.53	3778751.34	0.00016
369621.84	3778549.71	0.00033	369608.62	3778540.93	0.00033
369491.97	3778688.07	0.00013	369551.43	3778498.04	0.00030
369467.11	3778588.61	0.00017	369442.24	3778525.50	0.00021
369426.94	3778653.64	0.00011	369430.77	3778596.26	0.00017
369384.87	3778676.59	0.00010	369398.26	3778498.73	0.00016
369245.26	3778531.24	0.00009	369245.26	3778441.35	0.00011
369484.59	3778462.33	0.00024	369629.21	3778438.68	0.00031
369814.80	3778308.83	0.00109	369781.29	3778368.86	0.00095
369811.05	3778376.63	0.00092	369852.96	3778354.56	0.00065
369860.75	3778292.26	0.00079	369856.21	3778259.16	0.00086

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE SUMMARY OF MAXIMUM 1ST-HIGHEST MAX DAILY 1-HR RESULTS AVERAGED OVER 3 YEARS ***

** CONC OF NO2 IN PPM **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
NO2	1ST HIGHEST VALUE IS	0.00109	AT (369686.20, 3778352.98, 240.37, 365.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00109	AT (369814.80, 3778308.83, 242.46, 365.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00104	AT (369670.52, 3778388.27, 238.88, 365.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00095	AT (369781.29, 3778368.86, 239.64, 365.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00092	AT (369811.05, 3778376.63, 240.33, 365.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00086	AT (369856.21, 3778259.16, 245.66, 365.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00085	AT (369849.63, 3778322.03, 243.87, 365.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.00079	AT (369860.75, 3778292.26, 246.54, 304.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.00065	AT (369852.96, 3778354.56, 243.21, 304.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.00049	AT (369640.00, 3778638.03, 216.15, 365.00, 0.00)	DC	
ALL	1ST HIGHEST VALUE IS	0.00109	AT (369686.20, 3778352.98, 240.37, 365.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00109	AT (369814.80, 3778308.83, 242.46, 365.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00104	AT (369670.52, 3778388.27, 238.88, 365.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00095	AT (369781.29, 3778368.86, 239.64, 365.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00092	AT (369811.05, 3778376.63, 240.33, 365.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00086	AT (369856.21, 3778259.16, 245.66, 365.00, 0.00)	DC	

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – NO_2

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         7TH HIGHEST VALUE IS       0.00085 AT (  369849.63,  3778322.03,   243.87,   365.00,    0.00)  DC
         8TH HIGHEST VALUE IS       0.00079 AT (  369860.75,  3778292.26,   246.54,   304.00,    0.00)  DC
         9TH HIGHEST VALUE IS       0.00065 AT (  369852.96,  3778354.56,   243.21,   304.00,    0.00)  DC
        10TH HIGHEST VALUE IS       0.00049 AT (  369640.00,  3778638.03,   216.15,   365.00,    0.00)  DC


*** RECEPTOR TYPES:  GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus NO2                                           ***        15:46:59
                                                                                                                      PAGE  21
**MODELOPTs:  RegDFAULT CONC                                            ELEV      FLGPOL


*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            0 Warning Message(s)
A Total of          154 Informational Message(s)

A Total of        26280 Hours Were Processed

A Total of            0 Calm Hours Identified

A Total of          154 Missing Hours Identified (  0.59 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
              ***  NONE  ***


   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – CO

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**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 7.5.0
** Lakes Environmental Software Inc.
** Date: 10/25/2012
** File: J:\Projects\Harvard Westlake Parking Structure 2010-082\Air Quality\Construction\AERMOD\Operational\Bus CO\Bus CO.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Harvard Westlake Upper School Parking Infrastructure Project
   TITLETWO Operational School Bus CO
   MODELOPT DFAULT CONC
   AVERTIME 1 8
   URBANOPT 9862049
   POLLUTID CO
   FLAGPOLE 0.00
   RUNORNOT RUN
   ERRORFIL "Bus CO.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** Line Source represented by Separated Volume Sources
** ------------------------------------------------------------------------
** LINE Source ID = SLINE1
** DESCRSRC Bus Travel from SB on Coldwater Canyon from US-101
** Length of Side = 7.32
** Emission Rate = 0.000707
** Vertical Dimension = 5.00
** SZINIT = 2.33
** Nodes = 5
** 369659.17, 3778795.35, 213.00, 0.00, 6.60
** 369656.50, 3778635.36, 222.00, 0.00, 6.60
** 369659.17, 3778598.03, 222.00, 0.00, 6.60
** 369668.50, 3778550.03, 231.00, 0.00, 6.60
** 369672.50, 3778491.37, 240.00, 0.00, 6.60
** ------------------------------------------------------------------------
   LOCATION L0000442     VOLUME   369659.106 3778791.697 212.06
   LOCATION L0000443     VOLUME   369658.870 3778777.517 212.28
   LOCATION L0000444     VOLUME   369658.634 3778763.337 212.48
   LOCATION L0000445     VOLUME   369658.397 3778749.157 212.56
   LOCATION L0000446     VOLUME   369658.161 3778734.976 212.64
   LOCATION L0000447     VOLUME   369657.925 3778720.796 212.73
   LOCATION L0000448     VOLUME   369657.688 3778706.616 212.81
   LOCATION L0000449     VOLUME   369657.452 3778692.436 212.89
   LOCATION L0000450     VOLUME   369657.216 3778678.256 212.98
   LOCATION L0000451     VOLUME   369656.979 3778664.075 213.80
   LOCATION L0000452     VOLUME   369656.743 3778649.895 214.93
   LOCATION L0000453     VOLUME   369656.507 3778635.715 216.07
   LOCATION L0000454     VOLUME   369657.486 3778621.568 217.17
   LOCATION L0000455     VOLUME   369658.496 3778607.422 218.26
   LOCATION L0000456     VOLUME   369660.077 3778593.351 219.31
   LOCATION L0000457     VOLUME   369662.784 3778579.430 220.36
   LOCATION L0000458     VOLUME   369665.491 3778565.509 221.91
   LOCATION L0000459     VOLUME   369668.198 3778551.587 223.48
   LOCATION L0000460     VOLUME   369669.357 3778537.463 225.15
   LOCATION L0000461     VOLUME   369670.322 3778523.314 226.84
   LOCATION L0000462     VOLUME   369671.287 3778509.165 228.55
   LOCATION L0000463     VOLUME   369672.251 3778495.015 230.26
** End of Line Source
** Line Source represented by Separated Volume Sources
** ------------------------------------------------------------------------
** LINE Source ID = SLINE2
** DESCRSRC Bus Travel NB from Coldwater Canyon
** Length of Side = 7.32
** Emission Rate = 0.002121
** Vertical Dimension = 5.00
** SZINIT = 2.33
** Nodes = 6
** 369678.85, 3778478.78, 238.00, 0.00, 6.52
** 369680.18, 3778462.79, 238.00, 0.00, 6.52
** 369722.85, 3778362.79, 243.00, 0.00, 6.52
** 369765.51, 3778304.12, 243.00, 0.00, 6.52
** 369774.85, 3778292.12, 243.00, 0.00, 6.52
** 369786.85, 3778261.46, 243.00, 0.00, 6.52
** ------------------------------------------------------------------------
   LOCATION L0000486     VOLUME   369679.153 3778475.140 232.08
   LOCATION L0000487     VOLUME   369680.815 3778461.304 233.16
   LOCATION L0000488     VOLUME   369686.312 3778448.420 234.09
   LOCATION L0000489     VOLUME   369691.809 3778435.537 235.00
   LOCATION L0000490     VOLUME   369697.306 3778422.653 235.94
   LOCATION L0000491     VOLUME   369702.803 3778409.769 236.92
   LOCATION L0000492     VOLUME   369708.301 3778396.885 237.93
   LOCATION L0000493     VOLUME   369713.798 3778384.001 238.61
   LOCATION L0000494     VOLUME   369719.295 3778371.117 239.23
   LOCATION L0000495     VOLUME   369725.761 3778358.783 239.81
   LOCATION L0000496     VOLUME   369734.000 3778347.455 240.30
   LOCATION L0000497     VOLUME   369742.239 3778336.126 240.76
   LOCATION L0000498     VOLUME   369750.478 3778324.798 241.20
   LOCATION L0000499     VOLUME   369758.717 3778313.469 241.61
   LOCATION L0000500     VOLUME   369767.019 3778302.188 242.04
   LOCATION L0000501     VOLUME   369775.305 3778290.953 242.25
   LOCATION L0000502     VOLUME   369780.409 3778277.908 242.42
   LOCATION L0000503     VOLUME   369785.514 3778264.864 242.58
** End of Line Source
   LOCATION AREA         AREA       369794.871  3778265.530      242.640
** DESCRSRC Bus South Lot
** Source Parameters **
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   SRCPARAM L0000442     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000443     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000444     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000445     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000446     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000447     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000448     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000449     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000450     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000451     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000452     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000453     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000454     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000455     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000456     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000457     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000458     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000459     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000460     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000461     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000462     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000463     0.0000321364      0.00      6.60      2.33
   SRCPARAM L0000486     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000487     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000488     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000489     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000490     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000491     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000492     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000493     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000494     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000495     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000496     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000497     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000498     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000499     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000500     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000501     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000502     0.0001178333      0.00      6.52      2.33
   SRCPARAM L0000503     0.0001178333      0.00      6.52      2.33
   SRCPARAM AREA         3.6737E-07     5.000    33.000    73.000   -27.850
   URBANSRC L0000442
   URBANSRC L0000443
   URBANSRC L0000444
   URBANSRC L0000445
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   URBANSRC L0000463
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   URBANSRC L0000499
   URBANSRC L0000500
   URBANSRC L0000501
   URBANSRC L0000502
   URBANSRC L0000503
   URBANSRC AREA

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "CO"
   EMISFACT L0000486     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000486     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000486     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000486     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000487     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000487     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000487     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000487     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000488     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000488     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000488     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000488     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000489     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000489     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000489     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000489     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000490     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000490     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000490     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000490     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000491     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000491     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000491     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000491     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000492     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000492     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
   EMISFACT L0000492     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
   EMISFACT L0000492     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000493     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000493     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000493     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000493     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000494     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000494     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000494     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000494     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000495     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000495     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000495     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000495     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000496     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000496     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000496     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
EMISFACT L0000496     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000497     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000497     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
EMISFACT L0000497     HROFDY 0.0 0.0 0.0 1.0 0.0 0.0
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EMISFACT L0000459     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000459     HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000463     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA         HROFDY 0.0 1.0 0.0 0.0 0.0 0.0
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   EMISFACT AREA         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   CONCUNIT 873.2 GRAMS/SEC PPM
   SRCGROUP CO       L0000442 L0000443 L0000444 L0000445 L0000446 L0000447
   SRCGROUP CO       L0000448 L0000449 L0000450 L0000451 L0000452 L0000453
   SRCGROUP CO       L0000454 L0000455 L0000456 L0000457 L0000458 L0000459
   SRCGROUP CO       L0000460 L0000461 L0000462 L0000463 L0000486 L0000487
   SRCGROUP CO       L0000488 L0000489 L0000490 L0000491 L0000492 L0000493
   SRCGROUP CO       L0000494 L0000495 L0000496 L0000497 L0000498 L0000499
   SRCGROUP CO       L0000500 L0000501 L0000502 L0000503 AREA
   SRCGROUP ALL
SO FINISHED
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** AERMOD Receptor Pathway
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**
**
RE STARTING
   INCLUDED "Bus CO.rou"
RE FINISHED
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**************************************
** AERMOD Meteorology Pathway
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**
**
ME STARTING
   SURFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC"
   PROFFILE "L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL"
   SURFDATA 0 2005
   UAIRDATA 3190 2005
   PROFBASE 0.0 METERS
ME FINISHED
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** AERMOD Output Pathway
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**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "BUS CO.AD\01H1GALL.PLT"
   PLOTFILE 8 ALL 1ST "BUS CO.AD\08H1GALL.PLT"
   PLOTFILE 1 CO 1ST "BUS CO.AD\01H1G001.PLT"
   PLOTFILE 8 CO 1ST "BUS CO.AD\08H1G001.PLT"
   SUMMFILE "Bus CO.sum"
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus CO                                            ***        15:34:10
                                                                                                                      PAGE   1
 **MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL


                                       ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    41 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   9862049.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay for URBAN/Non-SO2.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Model Accepts FLAGPOLE Receptor Heights.

 **Model Calculates  2 Short Term Average(s) of:   1-HR   8-HR

 **This Run Includes:     41 Source(s);       2 Source Group(s); and      70 Receptor(s)

 **The Model Assumes A Pollutant Type of:  CO
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – CO

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
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) = 0.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 873.20
Output Units = PPM

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Detailed Error/Message File: Bus CO.err
**File for Summary of Results: Bus CO.sum

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus CO *** 15:34:10
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000442	0	0.32136E-04	369659.1	3778791.7	212.1	0.00	6.60	2.33	YES	HROFDY
L0000443	0	0.32136E-04	369658.9	3778777.5	212.3	0.00	6.60	2.33	YES	HROFDY
L0000444	0	0.32136E-04	369658.6	3778763.3	212.5	0.00	6.60	2.33	YES	HROFDY
L0000445	0	0.32136E-04	369658.4	3778749.2	212.6	0.00	6.60	2.33	YES	HROFDY
L0000446	0	0.32136E-04	369658.2	3778735.0	212.6	0.00	6.60	2.33	YES	HROFDY
L0000447	0	0.32136E-04	369657.9	3778720.8	212.7	0.00	6.60	2.33	YES	HROFDY
L0000448	0	0.32136E-04	369657.7	3778706.6	212.8	0.00	6.60	2.33	YES	HROFDY
L0000449	0	0.32136E-04	369657.5	3778692.4	212.9	0.00	6.60	2.33	YES	HROFDY
L0000450	0	0.32136E-04	369657.2	3778678.3	213.0	0.00	6.60	2.33	YES	HROFDY
L0000451	0	0.32136E-04	369657.0	3778664.1	213.8	0.00	6.60	2.33	YES	HROFDY
L0000452	0	0.32136E-04	369656.7	3778649.9	214.9	0.00	6.60	2.33	YES	HROFDY
L0000453	0	0.32136E-04	369656.5	3778635.7	216.1	0.00	6.60	2.33	YES	HROFDY
L0000454	0	0.32136E-04	369657.5	3778621.6	217.2	0.00	6.60	2.33	YES	HROFDY
L0000455	0	0.32136E-04	369658.5	3778607.4	218.3	0.00	6.60	2.33	YES	HROFDY
L0000456	0	0.32136E-04	369660.1	3778593.4	219.3	0.00	6.60	2.33	YES	HROFDY
L0000457	0	0.32136E-04	369662.8	3778579.4	220.4	0.00	6.60	2.33	YES	HROFDY
L0000458	0	0.32136E-04	369665.5	3778565.5	221.9	0.00	6.60	2.33	YES	HROFDY
L0000459	0	0.32136E-04	369668.2	3778551.6	223.5	0.00	6.60	2.33	YES	HROFDY
L0000460	0	0.32136E-04	369669.4	3778537.5	225.2	0.00	6.60	2.33	YES	HROFDY
L0000461	0	0.32136E-04	369670.3	3778523.3	226.8	0.00	6.60	2.33	YES	HROFDY
L0000462	0	0.32136E-04	369671.3	3778509.2	228.6	0.00	6.60	2.33	YES	HROFDY
L0000463	0	0.32136E-04	369672.3	3778495.0	230.3	0.00	6.60	2.33	YES	HROFDY
L0000486	0	0.11783E-03	369679.2	3778475.1	232.1	0.00	6.52	2.33	YES	HROFDY
L0000487	0	0.11783E-03	369680.8	3778461.3	233.2	0.00	6.52	2.33	YES	HROFDY
L0000488	0	0.11783E-03	369686.3	3778448.4	234.1	0.00	6.52	2.33	YES	HROFDY
L0000489	0	0.11783E-03	369691.8	3778435.5	235.0	0.00	6.52	2.33	YES	HROFDY
L0000490	0	0.11783E-03	369697.3	3778422.7	235.9	0.00	6.52	2.33	YES	HROFDY
L0000491	0	0.11783E-03	369702.8	3778409.8	236.9	0.00	6.52	2.33	YES	HROFDY
L0000492	0	0.11783E-03	369708.3	3778396.9	237.9	0.00	6.52	2.33	YES	HROFDY
L0000493	0	0.11783E-03	369713.8	3778384.0	238.6	0.00	6.52	2.33	YES	HROFDY
L0000494	0	0.11783E-03	369719.3	3778371.1	239.2	0.00	6.52	2.33	YES	HROFDY
L0000495	0	0.11783E-03	369725.8	3778358.8	239.8	0.00	6.52	2.33	YES	HROFDY
L0000496	0	0.11783E-03	369734.0	3778347.5	240.3	0.00	6.52	2.33	YES	HROFDY
L0000497	0	0.11783E-03	369742.2	3778336.1	240.8	0.00	6.52	2.33	YES	HROFDY
L0000498	0	0.11783E-03	369750.5	3778324.8	241.2	0.00	6.52	2.33	YES	HROFDY
L0000499	0	0.11783E-03	369758.7	3778313.5	241.6	0.00	6.52	2.33	YES	HROFDY
L0000500	0	0.11783E-03	369767.0	3778302.2	242.0	0.00	6.52	2.33	YES	HROFDY
L0000501	0	0.11783E-03	369775.3	3778291.0	242.2	0.00	6.52	2.33	YES	HROFDY
L0000502	0	0.11783E-03	369780.4	3778277.9	242.4	0.00	6.52	2.33	YES	HROFDY
L0000503	0	0.11783E-03	369785.5	3778264.9	242.6	0.00	6.52	2.33	YES	HROFDY

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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
AREA	0	0.36737E-06	369794.9	3778265.5	242.6	5.00	33.00	73.00	-27.85	0.00	YES	HROFDY

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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs							
CO	L0000442	, L0000443	, L0000444	, L0000445	, L0000446	, L0000447	, L0000448	, L0000449 ,
	L0000450	, L0000451	, L0000452	, L0000453	, L0000454	, L0000455	, L0000456	, L0000457 ,
	L0000458	, L0000459	, L0000460	, L0000461	, L0000462	, L0000463	, L0000486	, L0000487 ,
	L0000488	, L0000489	, L0000490	, L0000491	, L0000492	, L0000493	, L0000494	, L0000495 ,
	L0000496	, L0000497	, L0000498	, L0000499	, L0000500	, L0000501	, L0000502	, L0000503 ,
	AREA ,							

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 ALL       L0000442    , L0000443    , L0000444    , L0000445    , L0000446    , L0000447    , L0000448    , L0000449    ,
           L0000450    , L0000451    , L0000452    , L0000453    , L0000454    , L0000455    , L0000456    , L0000457    ,
           L0000458    , L0000459    , L0000460    , L0000461    , L0000462    , L0000463    , L0000486    , L0000487    ,
           L0000488    , L0000489    , L0000490    , L0000491    , L0000492    , L0000493    , L0000494    , L0000495    ,
           L0000496    , L0000497    , L0000498    , L0000499    , L0000500    , L0000501    , L0000502    , L0000503    ,
           AREA        ,
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                                                                                                                     PAGE   5
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000442     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000443     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000444     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000445     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000446     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                 *** Operational School Bus CO                                            ***        15:34:10
                                                                                                                     PAGE   6
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000447     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000448     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000449     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000450     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000451     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                 *** Operational School Bus CO                                            ***        15:34:10
                                                                                                                     PAGE   7
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – CO

```
    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000452     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000453     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000454     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000455     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000456     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus CO                                           ***        15:34:10
                                                                                                                     PAGE   8
**MODELOPTs:  RegDFAULT CONC                                            ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000457     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000458     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000459     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000460     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000461     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus CO                                           ***        15:34:10
                                                                                                                     PAGE   9
**MODELOPTs:  RegDFAULT CONC                                            ELEV      FLGPOL

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000462     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000463     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000486     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
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     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000487     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000488     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus CO                                           ***        15:34:10
                                                                                                                     PAGE  10
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000489     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000490     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000491     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000492     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000493     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus CO                                           ***        15:34:10
                                                                                                                     PAGE  11
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0000494     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000495     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000496     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000497     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = L0000498     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .00000E+00     10   .00000E+00     11   .00000E+00     12   .00000E+00
     13   .00000E+00     14   .00000E+00     15   .00000E+00     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus CO                                           ***        15:34:10
                                                                                                                     PAGE  12
**MODELOPTs:  RegDFAULT CONC                                          ELEV      FLGPOL
```

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0000499 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000500 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000501 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000502 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0000503 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = AREA ; SOURCE TYPE = AREA :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.00000E+00	10	.00000E+00	11	.00000E+00	12	.00000E+00
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(369670.5,	3778388.3,	238.9,	365.0,	0.0);	(369686.2,	3778353.0,	240.4,	365.0,	0.0);
(369701.7,	3778534.9,	224.8,	365.0,	0.0);	(369685.0,	3778565.2,	221.3,	365.0,	0.0);
(369709.4,	3778565.2,	220.8,	365.0,	0.0);	(369733.8,	3778565.2,	220.3,	365.0,	0.0);
(369760.4,	3778565.2,	219.9,	365.0,	0.0);	(369685.0,	3778627.6,	216.1,	365.0,	0.0);
(369709.4,	3778627.6,	215.9,	365.0,	0.0);	(369733.8,	3778627.6,	215.7,	365.0,	0.0);
(369760.4,	3778627.6,	215.5,	365.0,	0.0);	(369684.6,	3778740.8,	212.4,	365.0,	0.0);
(369709.0,	3778740.8,	212.3,	365.0,	0.0);	(369733.4,	3778740.8,	212.3,	365.0,	0.0);
(369760.0,	3778740.8,	212.3,	365.0,	0.0);	(369684.6,	3778685.5,	212.9,	365.0,	0.0);
(369709.0,	3778685.5,	212.9,	365.0,	0.0);	(369733.5,	3778685.5,	212.9,	365.0,	0.0);
(369760.1,	3778685.5,	212.9,	365.0,	0.0);	(369810.6,	3778741.3,	212.1,	365.0,	0.0);
(369828.2,	3778628.6,	214.6,	365.0,	0.0);	(369867.0,	3778658.0,	212.8,	365.0,	0.0);
(369904.5,	3778679.1,	212.0,	365.0,	0.0);	(369858.7,	3778708.4,	212.0,	365.0,	0.0);
(369905.7,	3778639.1,	214.2,	365.0,	0.0);	(369885.8,	3778619.1,	215.4,	365.0,	0.0);
(369638.6,	3778030.1,	269.3,	365.0,	0.0);	(369698.0,	3778231.8,	243.0,	365.0,	0.0);
(369682.8,	3778161.3,	247.8,	365.0,	0.0);	(369653.8,	3778099.1,	252.5,	365.0,	0.0);
(369666.2,	3778059.1,	259.1,	365.0,	0.0);	(369722.9,	3778230.4,	242.9,	365.0,	0.0);
(369716.0,	3778190.3,	244.4,	365.0,	0.0);	(369703.6,	3778158.6,	247.2,	365.0,	0.0);
(369687.0,	3778126.8,	251.1,	365.0,	0.0);	(369675.9,	3778097.8,	253.5,	365.0,	0.0);
(369703.6,	3778108.8,	251.0,	365.0,	0.0);	(369727.0,	3778139.2,	247.0,	365.0,	0.0);
(369903.9,	3778552.4,	223.0,	365.0,	0.0);	(369866.6,	3778563.4,	219.9,	365.0,	0.0);
(369873.5,	3778516.4,	227.5,	365.0,	0.0);	(369887.3,	3778491.6,	232.5,	304.0,	0.0);
(369859.7,	3778444.6,	236.3,	304.0,	0.0);	(369849.6,	3778322.0,	243.9,	365.0,	0.0);
(369643.4,	3778672.5,	213.2,	365.0,	0.0);	(369644.1,	3778798.3,	212.1,	365.0,	0.0);
(369591.6,	3778750.0,	213.4,	365.0,	0.0);	(369640.0,	3778638.0,	216.2,	365.0,	0.0);
(369590.3,	3778698.8,	214.8,	365.0,	0.0);	(369569.5,	3778751.3,	213.8,	365.0,	0.0);
(369621.8,	3778549.7,	225.0,	365.0,	0.0);	(369608.6,	3778540.9,	226.6,	365.0,	0.0);
(369492.0,	3778688.1,	228.6,	365.0,	0.0);	(369551.4,	3778498.0,	236.0,	365.0,	0.0);
(369467.1,	3778588.6,	240.7,	365.0,	0.0);	(369442.2,	3778525.5,	243.2,	365.0,	0.0);
(369426.9,	3778653.6,	236.6,	365.0,	0.0);	(369430.8,	3778596.3,	241.5,	365.0,	0.0);
(369384.9,	3778676.6,	233.1,	365.0,	0.0);	(369398.3,	3778498.7,	243.2,	365.0,	0.0);
(369245.3,	3778531.2,	233.6,	365.0,	0.0);	(369245.3,	3778441.3,	240.3,	365.0,	0.0);
(369484.6,	3778462.3,	244.4,	365.0,	0.0);	(369629.2,	3778438.7,	235.7,	365.0,	17.4);
(369814.8,	3778308.8,	242.5,	365.0,	0.0);	(369781.3,	3778368.9,	239.6,	365.0,	0.0);
(369811.0,	3778376.6,	240.3,	365.0,	0.0);	(369853.0,	3778354.6,	243.2,	304.0,	0.0);
(369860.8,	3778292.3,	246.5,	304.0,	0.0);	(369856.2,	3778259.2,	245.7,	365.0,	0.0);

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000450	369643.4	3778672.5	0.82

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus CO *** 15:34:10
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.SFC Met Version: 11059
Profile file: L:\Library & Reference\Wind Data\South Coast Air Basin\AERMOD Met Data\BURK2.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2005 Year: 2005

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
05	01	01	1	01	-1.5	0.047	-9.000	-9.000	-999.	24.	6.3	0.63	1.00	1.00	0.70	285.	12.2	279.9	8.5
05	01	01	1	02	-1.7	0.054	-9.000	-9.000	-999.	29.	8.3	0.63	1.00	1.00	0.80	278.	12.2	279.9	8.5
05	01	01	1	03	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	335.	12.2	279.2	8.5
05	01	01	1	04	-2.0	0.054	-9.000	-9.000	-999.	29.	6.9	0.63	1.00	1.00	0.80	291.	12.2	278.8	8.5
05	01	01	1	05	-2.1	0.061	-9.000	-9.000	-999.	34.	9.4	0.63	1.00	1.00	0.90	334.	12.2	278.1	8.5
05	01	01	1	06	-0.9	0.040	-9.000	-9.000	-999.	19.	6.2	0.63	1.00	1.00	0.60	309.	12.2	278.8	8.5
05	01	01	1	07	-1.3	0.047	-9.000	-9.000	-999.	24.	7.3	0.63	1.00	1.00	0.70	312.	12.2	278.8	8.5
05	01	01	1	08	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	0.56	0.60	256.	12.2	279.2	8.5
05	01	01	1	09	20.5	0.177	0.303	0.005	48.	171.	-23.9	0.63	1.00	0.33	1.00	298.	12.2	282.5	8.5
05	01	01	1	10	52.6	0.184	1.005	0.005	684.	181.	-10.4	0.63	1.00	0.25	0.90	103.	12.2	286.4	8.5
05	01	01	1	11	109.2	0.376	1.415	0.006	920.	529.	-42.9	0.63	1.00	0.22	2.30	136.	12.2	287.0	8.5
05	01	01	1	12	27.8	0.303	0.917	0.007	980.	386.	-88.5	0.63	1.00	0.21	2.00	152.	12.2	287.0	8.5
05	01	01	1	13	27.2	0.255	0.927	0.007	1037.	297.	-53.9	0.63	1.00	0.21	1.60	187.	12.2	285.9	8.5
05	01	01	1	14	22.9	0.227	0.899	0.008	1123.	249.	-45.2	0.63	1.00	0.22	1.40	156.	12.2	287.0	8.5
05	01	01	1	15	13.9	0.218	0.774	0.009	1179.	234.	-66.0	0.63	1.00	0.26	1.40	192.	12.2	286.4	8.5
05	01	01	1	16	1.5	0.234	0.373	0.009	1183.	260.	-729.3	0.63	1.00	0.34	1.70	188.	12.2	285.9	8.5
05	01	01	1	17	-3.6	0.088	-9.000	-9.000	-999.	77.	16.6	0.63	1.00	0.61	1.30	200.	12.2	285.4	8.5
05	01	01	1	18	-1.8	0.061	-9.000	-9.000	-999.	34.	11.0	0.63	1.00	1.00	0.90	162.	12.2	284.9	8.5
05	01	01	1	19	-1.1	0.047	-9.000	-9.000	-999.	24.	8.6	0.63	1.00	1.00	0.70	176.	12.2	284.9	8.5
05	01	01	1	20	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	210.	12.2	284.2	8.5
05	01	01	1	21	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	236.	12.2	284.2	8.5
05	01	01	1	22	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	272.	12.2	283.8	8.5
05	01	01	1	23	-0.9	0.040	-9.000	-9.000	-999.	19.	6.3	0.63	1.00	1.00	0.60	251.	12.2	283.1	8.5
05	01	01	1	24	-0.8	0.040	-9.000	-9.000	-999.	19.	7.3	0.63	1.00	1.00	0.60	301.	12.2	282.5	8.5

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
05	01	01	01	8.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
05	01	01	01	12.2	1	285.	0.70	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 11353 *** *** Harvard Westlake Upper School Parking Infrastructure Project *** 10/25/12
*** Operational School Bus CO *** 15:34:10
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**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CO ***
INCLUDING SOURCE(S): L0000442 , L0000443 , L0000444 , L0000445 , L0000446 ,
L0000447 , L0000448 , L0000449 , L0000450 , L0000451 , L0000452 , L0000453 , L0000454 ,
L0000455 , L0000456 , L0000457 , L0000458 , L0000459 , L0000460 , L0000461 , L0000462 ,
L0000463 , L0000486 , L0000487 , L0000488 , L0000489 , L0000490 , L0000491 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN PPM **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.00205	(07112008)	369686.20	3778352.98	0.00228	(07111708)
369701.74	3778534.95	0.00053	(06012708)	369684.96	3778565.24	0.00059	(07111808)
369709.39	3778565.24	0.00043	(06012708)	369733.82	3778565.24	0.00038	(06012708)
369760.43	3778565.24	0.00037	(06112408)	369684.96	3778627.64	0.00044	(06012708)
369709.39	3778627.64	0.00034	(06012708)	369733.82	3778627.64	0.00030	(06112408)
369760.43	3778627.64	0.00029	(06112408)	369684.56	3778740.79	0.00043	(07111808)
369708.99	3778740.79	0.00026	(06112408)	369733.42	3778740.79	0.00023	(06112408)
369760.02	3778740.79	0.00020	(06112408)	369684.59	3778685.54	0.00043	(07111808)
369709.02	3778685.54	0.00030	(06112408)	369733.45	3778685.54	0.00026	(06112408)
369760.06	3778685.54	0.00024	(06112408)	369810.59	3778741.35	0.00017	(07012808)
369828.20	3778628.60	0.00024	(07012808)	369866.96	3778657.96	0.00021	(07111808)

369904.54	3778679.10	0.00027	(07111808)	369858.74	3778708.37	0.00018	(07012808)
369905.71	3778639.08	0.00036	(07111808)	369885.75	3778619.11	0.00035	(07111808)
369638.62	3778030.06	0.00020	(07010708)	369698.03	3778231.80	0.00084	(05010208)
369682.83	3778161.33	0.00057	(05010208)	369653.81	3778099.15	0.00034	(05010208)
369666.25	3778059.08	0.00029	(07010708)	369722.90	3778230.42	0.00114	(05010208)
369715.99	3778190.35	0.00075	(05010208)	369703.56	3778158.57	0.00050	(05010208)
369686.98	3778126.79	0.00037	(07010708)	369675.92	3778097.77	0.00034	(07010708)
369703.56	3778108.82	0.00041	(07010708)	369727.05	3778139.22	0.00044	(07010708)
369903.91	3778552.37	0.00054	(07111808)	369866.61	3778563.43	0.00045	(07111808)
369873.52	3778516.45	0.00070	(07111808)	369887.33	3778491.57	0.00072	(07111808)
369859.70	3778444.59	0.00109	(07111808)	369849.63	3778322.03	0.00166	(05010108)
369643.37	3778672.46	0.00057	(06112908)	369644.15	3778798.32	0.00045	(06012708)
369591.64	3778749.96	0.00025	(05121808)	369640.00	3778638.03	0.00062	(06112908)
369590.26	3778698.83	0.00028	(07011508)	369569.53	3778751.34	0.00022	(07011508)
369621.84	3778549.71	0.00046	(07011508)	369608.62	3778540.93	0.00049	(06120908)
369491.97	3778688.07	0.00021	(06120908)	369551.43	3778498.04	0.00064	(07111908)
369467.11	3778588.61	0.00036	(07111908)	369442.24	3778525.50	0.00048	(07112008)
369426.94	3778653.64	0.00022	(07111908)	369430.77	3778596.26	0.00035	(07111908)
369384.87	3778676.59	0.00021	(07111908)	369398.26	3778498.73	0.00036	(07112008)
369245.26	3778531.24	0.00020	(07111708)	369245.26	3778441.35	0.00028	(07111708)
369484.59	3778462.33	0.00053	(07112008)	369629.21	3778438.68	0.00077	(07111908)
369814.80	3778308.83	0.00211	(07111808)	369781.29	3778368.86	0.00187	(06112408)
369811.05	3778376.63	0.00237	(07111808)	369852.96	3778354.56	0.00121	(05021308)
369860.75	3778292.26	0.00151	(07122308)	369856.21	3778259.16	0.00163	(06020308)

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000442 , L0000443 , L0000444 , L0000445 , L0000446 ,
L0000447 , L0000448 , L0000449 , L0000450 , L0000451 , L0000452 , L0000453 , L0000454 ,
L0000455 , L0000456 , L0000457 , L0000458 , L0000459 , L0000460 , L0000461 , L0000462 ,
L0000463 , L0000486 , L0000487 , L0000488 , L0000489 , L0000490 , L0000491 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN PPM **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.00205	(07112008)	369686.20	3778352.98	0.00228	(07111708)
369701.74	3778534.95	0.00053	(06012708)	369684.96	3778565.24	0.00059	(07111808)
369709.39	3778565.24	0.00043	(06012708)	369733.82	3778565.24	0.00038	(06012708)
369760.43	3778565.24	0.00037	(06112408)	369684.96	3778627.64	0.00044	(06012708)
369709.39	3778627.64	0.00034	(06012708)	369733.82	3778627.64	0.00030	(06112408)
369760.43	3778627.64	0.00029	(06112408)	369684.56	3778740.79	0.00043	(07111808)
369708.99	3778740.79	0.00026	(06112408)	369733.42	3778740.79	0.00023	(06112408)
369760.02	3778740.79	0.00020	(06112408)	369684.59	3778685.54	0.00043	(07111808)
369709.02	3778685.54	0.00030	(06112408)	369733.45	3778685.54	0.00026	(06112408)
369760.06	3778685.54	0.00024	(06112408)	369810.59	3778741.35	0.00017	(07012808)
369828.20	3778628.60	0.00024	(07012808)	369866.96	3778657.96	0.00021	(07111808)
369904.54	3778679.10	0.00027	(07111808)	369858.74	3778708.37	0.00018	(07012808)
369905.71	3778639.08	0.00036	(07111808)	369885.75	3778619.11	0.00035	(07111808)
369638.62	3778030.06	0.00020	(07010708)	369698.03	3778231.80	0.00084	(05010208)
369682.83	3778161.33	0.00057	(05010208)	369653.81	3778099.15	0.00034	(05010208)
369666.25	3778059.08	0.00029	(07010708)	369722.90	3778230.42	0.00114	(05010208)
369715.99	3778190.35	0.00075	(05010208)	369703.56	3778158.57	0.00050	(05010208)
369686.98	3778126.79	0.00037	(07010708)	369675.92	3778097.77	0.00034	(07010708)
369703.56	3778108.82	0.00041	(07010708)	369727.05	3778139.22	0.00044	(07010708)
369903.91	3778552.37	0.00054	(07111808)	369866.61	3778563.43	0.00045	(07111808)
369873.52	3778516.45	0.00070	(07111808)	369887.33	3778491.57	0.00072	(07111808)
369859.70	3778444.59	0.00109	(07111808)	369849.63	3778322.03	0.00166	(05010108)
369643.37	3778672.46	0.00057	(06112908)	369644.15	3778798.32	0.00045	(06012708)
369591.64	3778749.96	0.00025	(05121808)	369640.00	3778638.03	0.00062	(06112908)
369590.26	3778698.83	0.00028	(07011508)	369569.53	3778751.34	0.00022	(07011508)
369621.84	3778549.71	0.00046	(07011508)	369608.62	3778540.93	0.00049	(06120908)
369491.97	3778688.07	0.00021	(06120908)	369551.43	3778498.04	0.00064	(07111908)
369467.11	3778588.61	0.00036	(07111908)	369442.24	3778525.50	0.00048	(07112008)
369426.94	3778653.64	0.00022	(07111908)	369430.77	3778596.26	0.00035	(07111908)
369384.87	3778676.59	0.00021	(07111908)	369398.26	3778498.73	0.00036	(07112008)
369245.26	3778531.24	0.00020	(07111708)	369245.26	3778441.35	0.00028	(07111708)
369484.59	3778462.33	0.00053	(07112008)	369629.21	3778438.68	0.00077	(07111908)
369814.80	3778308.83	0.00211	(07111808)	369781.29	3778368.86	0.00187	(06112408)
369811.05	3778376.63	0.00237	(07111808)	369852.96	3778354.56	0.00121	(05021308)
369860.75	3778292.26	0.00151	(07122308)	369856.21	3778259.16	0.00163	(06020308)

**MODELOPTs: RegDFAULT CONC ELEV FLGPOL

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CO ***
INCLUDING SOURCE(S): L0000442 , L0000443 , L0000444 , L0000445 , L0000446 ,
L0000447 , L0000448 , L0000449 , L0000450 , L0000451 , L0000452 , L0000453 , L0000454 ,
L0000455 , L0000456 , L0000457 , L0000458 , L0000459 , L0000460 , L0000461 , L0000462 ,
L0000463 , L0000486 , L0000487 , L0000488 , L0000489 , L0000490 , L0000491 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN PPM **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369670.52	3778388.27	0.00026	(07112008)	369686.20	3778352.98	0.00028	(07111708)
369701.74	3778534.95	0.00007	(06012708)	369684.96	3778565.24	0.00007	(07111808)
369709.39	3778565.24	0.00005	(06012708)	369733.82	3778565.24	0.00005	(06012708)
369760.43	3778565.24	0.00005	(06112408)	369684.96	3778627.64	0.00005	(06012708)
369709.39	3778627.64	0.00004	(06012708)	369733.82	3778627.64	0.00004	(06112408)
369760.43	3778627.64	0.00004	(06112408)	369684.56	3778740.79	0.00005	(07111808)
369708.99	3778740.79	0.00003	(06112408)	369733.42	3778740.79	0.00003	(06112408)
369760.02	3778740.79	0.00003	(06112408)	369684.59	3778685.54	0.00005	(07111808)
369709.02	3778685.54	0.00004	(06112408)	369733.45	3778685.54	0.00003	(06112408)
369760.06	3778685.54	0.00003	(06112408)	369810.59	3778741.35	0.00002	(07012808)
369828.20	3778628.60	0.00003	(07012808)	369866.96	3778657.96	0.00003	(07111808)
369904.54	3778679.10	0.00003	(07111808)	369858.74	3778708.37	0.00002	(07012808)
369905.71	3778639.08	0.00004	(07111808)	369885.75	3778619.11	0.00004	(07111808)
369638.62	3778030.06	0.00002	(07010708)	369698.03	3778231.80	0.00010	(05010208)
369682.83	3778161.33	0.00007	(05010208)	369653.81	3778099.15	0.00004	(05010208)
369666.25	3778059.08	0.00004	(07010708)	369722.90	3778230.42	0.00014	(05010208)
369715.99	3778190.35	0.00009	(05010208)	369703.56	3778158.57	0.00006	(05010208)
369686.98	3778126.79	0.00005	(07010708)	369675.92	3778097.77	0.00004	(07010708)

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       369703.56   3778108.82        0.00005  (07010708)              369727.05   3778139.22        0.00006  (07010708)
       369903.91   3778552.37        0.00007  (07111808)              369866.61   3778563.43        0.00006  (07111808)
       369873.52   3778516.45        0.00009  (07111808)              369887.33   3778491.57        0.00009  (07111808)
       369859.70   3778444.59        0.00014  (07111808)              369849.63   3778322.03        0.00021  (05010108)
       369643.37   3778672.46        0.00007  (06112908)              369644.15   3778798.32        0.00006  (06012708)
       369591.64   3778749.96        0.00003  (05121808)              369640.00   3778638.03        0.00008  (06112908)
       369590.26   3778698.83        0.00004  (07011508)              369569.53   3778751.34        0.00003  (07011508)
       369621.84   3778549.71        0.00006  (07011508)              369608.62   3778540.93        0.00006  (06120908)
       369491.97   3778688.07        0.00003  (06120908)              369551.43   3778498.04        0.00008  (07111908)
       369467.11   3778588.61        0.00004  (07111908)              369442.24   3778525.50        0.00006  (07112008)
       369426.94   3778653.64        0.00003  (07111908)              369430.77   3778596.26        0.00004  (07111908)
       369384.87   3778676.59        0.00003  (07111908)              369398.26   3778498.73        0.00004  (07112008)
       369245.26   3778531.24        0.00003  (07111708)              369245.26   3778441.35        0.00003  (07111708)
       369484.59   3778462.33        0.00007  (07112008)              369629.21   3778438.68        0.00010  (07111908)
       369814.80   3778308.83        0.00026  (07111808)              369781.29   3778368.86        0.00023  (06112408)
       369811.05   3778376.63        0.00030  (07111808)              369852.96   3778354.56        0.00015  (05021308)
       369860.75   3778292.26        0.00019  (07122308)              369856.21   3778259.16        0.00020  (06020308)
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus CO                                           ***        15:34:10
                                                                                                                     PAGE  21
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                        *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  ALL      ***
                           INCLUDING SOURCE(S):    L0000442    , L0000443    , L0000444    , L0000445    , L0000446    ,
               L0000447    , L0000448    , L0000449    , L0000450    , L0000451    , L0000452    , L0000453    , L0000454    ,
               L0000455    , L0000456    , L0000457    , L0000458    , L0000459    , L0000460    , L0000461    , L0000462    ,
               L0000463    , L0000486    , L0000487    , L0000488    , L0000489    , L0000490    , L0000491    ,  . . .      ,

                                     *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                  ** CONC OF CO       IN PPM                                  **

     X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       369670.52   3778388.27        0.00026  (07112008)              369686.20   3778352.98        0.00028  (07111708)
       369701.74   3778534.95        0.00007  (06012708)              369684.96   3778565.24        0.00007  (07111808)
       369709.39   3778565.24        0.00005  (06012708)              369733.82   3778565.24        0.00005  (06012708)
       369760.43   3778565.24        0.00005  (06112408)              369684.96   3778627.64        0.00005  (06012708)
       369709.39   3778627.64        0.00004  (06012708)              369733.82   3778627.64        0.00004  (06112408)
       369760.43   3778627.64        0.00004  (06112408)              369684.56   3778740.79        0.00005  (07111808)
       369708.99   3778740.79        0.00003  (06112408)              369733.42   3778740.79        0.00003  (06112408)
       369760.02   3778740.79        0.00003  (06112408)              369684.59   3778685.54        0.00005  (07111808)
       369709.02   3778685.54        0.00004  (06112408)              369733.45   3778685.54        0.00003  (06112408)
       369760.06   3778685.54        0.00003  (06112408)              369810.59   3778741.35        0.00002  (07012808)
       369828.20   3778628.60        0.00003  (07012808)              369866.96   3778657.96        0.00003  (07111808)
       369904.54   3778679.10        0.00003  (07111808)              369858.74   3778708.37        0.00002  (07012808)
       369905.71   3778639.08        0.00004  (07111808)              369885.75   3778619.11        0.00004  (07111808)
       369638.62   3778030.06        0.00002  (07010708)              369698.03   3778231.80        0.00010  (05010208)
       369682.83   3778161.33        0.00007  (05010208)              369653.81   3778099.15        0.00004  (05010208)
       369666.25   3778059.08        0.00004  (07010708)              369722.90   3778230.42        0.00014  (05010208)
       369715.99   3778190.35        0.00009  (05010208)              369703.56   3778158.57        0.00006  (05010208)
       369686.98   3778126.79        0.00005  (07010708)              369675.92   3778097.77        0.00004  (07010708)
       369703.56   3778108.82        0.00005  (07010708)              369727.05   3778139.22        0.00006  (07010708)
       369903.91   3778552.37        0.00007  (07111808)              369866.61   3778563.43        0.00006  (07111808)
       369873.52   3778516.45        0.00009  (07111808)              369887.33   3778491.57        0.00009  (07111808)
       369859.70   3778444.59        0.00014  (07111808)              369849.63   3778322.03        0.00021  (05010108)
       369643.37   3778672.46        0.00007  (06112908)              369644.15   3778798.32        0.00006  (06012708)
       369591.64   3778749.96        0.00003  (05121808)              369640.00   3778638.03        0.00008  (06112908)
       369590.26   3778698.83        0.00004  (07011508)              369569.53   3778751.34        0.00003  (07011508)
       369621.84   3778549.71        0.00006  (07011508)              369608.62   3778540.93        0.00006  (06120908)
       369491.97   3778688.07        0.00003  (06120908)              369551.43   3778498.04        0.00008  (07111908)
       369467.11   3778588.61        0.00004  (07111908)              369442.24   3778525.50        0.00006  (07112008)
       369426.94   3778653.64        0.00003  (07111908)              369430.77   3778596.26        0.00004  (07111908)
       369384.87   3778676.59        0.00003  (07111908)              369398.26   3778498.73        0.00004  (07112008)
       369245.26   3778531.24        0.00003  (07111708)              369245.26   3778441.35        0.00003  (07111708)
       369484.59   3778462.33        0.00007  (07112008)              369629.21   3778438.68        0.00010  (07111908)
       369814.80   3778308.83        0.00026  (07111808)              369781.29   3778368.86        0.00023  (06112408)
       369811.05   3778376.63        0.00030  (07111808)              369852.96   3778354.56        0.00015  (05021308)
       369860.75   3778292.26        0.00019  (07122308)              369856.21   3778259.16        0.00020  (06020308)
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus CO                                           ***        15:34:10
                                                                                                                     PAGE  22
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                                  *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***

                                ** CONC OF CO       IN PPM                                  **

                                                      DATE                                                          NETWORK
GROUP ID                       AVERAGE CONC        (YYMMDDHH)          RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

CO       HIGH   1ST HIGH VALUE IS       0.00237  ON 07111808: AT (  369811.05,  3778376.63,   240.33,   365.00,    0.00)  DC

ALL      HIGH   1ST HIGH VALUE IS       0.00237  ON 07111808: AT (  369811.05,  3778376.63,   240.33,   365.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus CO                                           ***        15:34:10
                                                                                                                     PAGE  23
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


                                  *** THE SUMMARY OF HIGHEST  8-HR RESULTS ***

                                ** CONC OF CO       IN PPM                                  **

                                                      DATE                                                          NETWORK
GROUP ID                       AVERAGE CONC        (YYMMDDHH)          RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

CO       HIGH   1ST HIGH VALUE IS       0.00030  ON 07111808: AT (  369811.05,  3778376.63,   240.33,   365.00,    0.00)  DC

ALL      HIGH   1ST HIGH VALUE IS       0.00030  ON 07111808: AT (  369811.05,  3778376.63,   240.33,   365.00,    0.00)  DC
```

Harvard-Westlake School Parking Structure Project
School Bus at South Lot Emissions – CO

```
*** RECEPTOR TYPES:  GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR
*** AERMOD - VERSION  11353 ***   *** Harvard Westlake Upper School Parking Infrastructure Project         ***        10/25/12
                                  *** Operational School Bus CO                                            ***        15:34:10
                                                                                                                      PAGE  24
**MODELOPTs:  RegDFAULT CONC                                              ELEV      FLGPOL


*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            0 Warning Message(s)
A Total of          154 Informational Message(s)

A Total of        26280 Hours Were Processed

A Total of            0 Calm Hours Identified

A Total of          154 Missing Hours Identified (  0.59 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
              ***  NONE  ***


   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
```

Sub-Appendix f

Greenhouse Gas Emissions - CalEEMod Output Files

Harvard Westlake School Parking Structure Project

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	750	Space

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	12		2.2		
		Precipitation Freq (Days)			
			33		

1.3 User Entered Comments

Land Use - A three-story parking structure consisting of 750 parking spaces development is proposed on a 5.5 acre project site.

Construction Phase - Approximate construction schedule.

Grading - It is anticipated that excavation would require the removal of approximately 135,000 cubic yards of material from site. Grading stage would require a total of 3.3 acres of land to be disturbed.

Trips and VMT - Approximately 20 workers would be on-site during the excavation stage. Grading and building construction are anticipated to have 45 onsite workers per day. Building construction is anticipated to require 22 concrete truck trips per day.

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403, the proposed project site would be water two times per day to reduce fugitive dust by 61 percent.

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.44	3.69	2.24	0.00	11.45	0.17	11.62	0.27	0.17	0.44	0.00	467.22	467.22	0.03	0.00	467.83
2015	0.42	2.82	2.16	0.00	2.65	0.15	2.80	0.28	0.15	0.43	0.00	416.07	416.07	0.03	0.00	416.74
2016	0.18	1.13	0.95	0.00	0.05	0.06	0.11	0.00	0.06	0.07	0.00	181.75	181.75	0.01	0.00	182.04
Total	**1.04**	**7.64**	**5.35**	**0.00**	**14.15**	**0.38**	**14.53**	**0.55**	**0.38**	**0.94**	**0.00**	**1,065.04**	**1,065.04**	**0.07**	**0.00**	**1,066.61**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.44	3.69	2.24	0.00	11.16	0.17	11.33	0.11	0.17	0.28	0.00	467.22	467.22	0.03	0.00	467.83
2015	0.42	2.82	2.16	0.00	2.35	0.15	2.50	0.11	0.15	0.26	0.00	416.07	416.07	0.03	0.00	416.74
2016	0.18	1.13	0.95	0.00	0.05	0.06	0.11	0.00	0.06	0.07	0.00	181.75	181.75	0.01	0.00	182.04
Total	**1.04**	**7.64**	**5.35**	**0.00**	**13.56**	**0.38**	**13.94**	**0.22**	**0.38**	**0.61**	**0.00**	**1,065.04**	**1,065.04**	**0.07**	**0.00**	**1,066.61**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.06	0.46	0.25	0.00		0.02	0.02		0.02	0.02	0.00	43.74	43.74	0.00	0.00	43.83
Total	**0.06**	**0.46**	**0.25**	**0.00**	**0.00**	**0.02**	**0.02**	**0.00**	**0.02**	**0.02**	**0.00**	**43.74**	**43.74**	**0.00**	**0.00**	**43.83**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.73
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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.00	0.00	0.87
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.60**	**1.60**	**0.00**	**0.00**	**1.60**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.06	0.46	0.25	0.00		0.02	0.02		0.02	0.02	0.00	43.74	43.74	0.00	0.00	43.83
Total	**0.06**	**0.46**	**0.25**	**0.00**	**0.00**	**0.02**	**0.02**	**0.00**	**0.02**	**0.02**	**0.00**	**43.74**	**43.74**	**0.00**	**0.00**	**43.83**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.73
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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.00	0.00	0.87
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.60**	**1.60**	**0.00**	**0.00**	**1.60**

3.3 Excavation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.48	0.00	0.48	0.26	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.58	0.89	0.00		0.07	0.07		0.07	0.07	0.00	152.48	152.48	0.02	0.00	152.81
Total	**0.20**	**1.58**	**0.89**	**0.00**	**0.48**	**0.07**	**0.55**	**0.26**	**0.07**	**0.33**	**0.00**	**152.48**	**152.48**	**0.02**	**0.00**	**152.81**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.17	1.63	0.99	0.00	10.95	0.07	11.02	0.01	0.07	0.08	0.00	254.94	254.94	0.01	0.00	255.10
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
Worker	0.01	0.01	0.09	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	14.46	14.46	0.00	0.00	14.48
Total	**0.18**	**1.64**	**1.08**	**0.00**	**10.97**	**0.07**	**11.04**	**0.01**	**0.07**	**0.08**	**0.00**	**269.40**	**269.40**	**0.01**	**0.00**	**269.58**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.19	0.00	0.19	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.58	0.89	0.00		0.07	0.07		0.07	0.07	0.00	152.48	152.48	0.02	0.00	152.81
Total	**0.20**	**1.58**	**0.89**	**0.00**	**0.19**	**0.07**	**0.26**	**0.10**	**0.07**	**0.17**	**0.00**	**152.48**	**152.48**	**0.02**	**0.00**	**152.81**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.17	1.63	0.99	0.00	10.95	0.07	11.02	0.01	0.07	0.08	0.00	254.94	254.94	0.01	0.00	255.10
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
Worker	0.01	0.01	0.09	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	14.46	14.46	0.00	0.00	14.48
Total	**0.18**	**1.64**	**1.08**	**0.00**	**10.97**	**0.07**	**11.04**	**0.01**	**0.07**	**0.08**	**0.00**	**269.40**	**269.40**	**0.01**	**0.00**	**269.58**

3.3 Excavation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.48	0.00	0.48	0.26	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.28	0.16	0.00		0.01	0.01		0.01	0.01	0.00	28.66	28.66	0.00	0.00	28.72
Total	**0.03**	**0.28**	**0.16**	**0.00**	**0.48**	**0.01**	**0.49**	**0.26**	**0.01**	**0.27**	**0.00**	**28.66**	**28.66**	**0.00**	**0.00**	**28.72**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.03	0.27	0.17	0.00	2.06	0.01	2.07	0.00	0.01	0.01	0.00	48.06	48.06	0.00	0.00	48.08
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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.66	2.66	0.00	0.00	2.67
Total	**0.03**	**0.27**	**0.19**	**0.00**	**2.06**	**0.01**	**2.07**	**0.00**	**0.01**	**0.01**	**0.00**	**50.72**	**50.72**	**0.00**	**0.00**	**50.75**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.19	0.00	0.19	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.28	0.16	0.00		0.01	0.01		0.01	0.01	0.00	28.66	28.66	0.00	0.00	28.72
Total	**0.03**	**0.28**	**0.16**	**0.00**	**0.19**	**0.01**	**0.20**	**0.10**	**0.01**	**0.11**	**0.00**	**28.66**	**28.66**	**0.00**	**0.00**	**28.72**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.03	0.27	0.17	0.00	2.06	0.01	2.07	0.00	0.01	0.01	0.00	48.06	48.06	0.00	0.00	48.08
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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.66	2.66	0.00	0.00	2.67
Total	**0.03**	**0.27**	**0.19**	**0.00**	**2.06**	**0.01**	**2.07**	**0.00**	**0.01**	**0.01**	**0.00**	**50.72**	**50.72**	**0.00**	**0.00**	**50.75**

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.05	0.00		0.00	0.00		0.00	0.00	0.00	8.18	8.18	0.00	0.00	8.19
Total	**0.01**	**0.07**	**0.05**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.01**	**0.00**	**8.18**	**8.18**	**0.00**	**0.00**	**8.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.96	0.00	0.00	0.96
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.96**	**0.96**	**0.00**	**0.00**	**0.96**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.05	0.00		0.00	0.00		0.00	0.00	0.00	8.18	8.18	0.00	0.00	8.19
Total	**0.01**	**0.07**	**0.05**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**8.18**	**8.18**	**0.00**	**0.00**	**8.19**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.96	0.00	0.00	0.96
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.96**	**0.96**	**0.00**	**0.00**	**0.96**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.28	1.81	1.18	0.00		0.11	0.11		0.11	0.11	0.00	207.77	207.77	0.02	0.00	208.24
Total	**0.28**	**1.81**	**1.18**	**0.00**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**207.77**	**207.77**	**0.02**	**0.00**	**208.24**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.04	0.35	0.25	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	64.16	64.16	0.00	0.00	64.19
Worker	0.03	0.03	0.33	0.00	0.07	0.00	0.07	0.00	0.00	0.01	0.00	55.62	55.62	0.00	0.00	55.69
Total	**0.07**	**0.38**	**0.58**	**0.00**	**0.09**	**0.01**	**0.10**	**0.00**	**0.01**	**0.02**	**0.00**	**119.78**	**119.78**	**0.00**	**0.00**	**119.88**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.28	1.81	1.18	0.00		0.11	0.11		0.11	0.11	0.00	207.77	207.77	0.02	0.00	208.24
Total	**0.28**	**1.81**	**1.18**	**0.00**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**207.77**	**207.77**	**0.02**	**0.00**	**208.24**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.04	0.35	0.25	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	64.16	64.16	0.00	0.00	64.19
Worker	0.03	0.03	0.33	0.00	0.07	0.00	0.07	0.00	0.00	0.01	0.00	55.62	55.62	0.00	0.00	55.69
Total	**0.07**	**0.38**	**0.58**	**0.00**	**0.09**	**0.01**	**0.10**	**0.00**	**0.01**	**0.02**	**0.00**	**119.78**	**119.78**	**0.00**	**0.00**	**119.88**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.14	0.92	0.64	0.00		0.05	0.05		0.05	0.05	0.00	114.63	114.63	0.01	0.00	114.87
Total	**0.14**	**0.92**	**0.64**	**0.00**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**114.63**	**114.63**	**0.01**	**0.00**	**114.87**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.02	0.18	0.13	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	35.47	35.47	0.00	0.00	35.49
Worker	0.02	0.02	0.17	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	30.24	30.24	0.00	0.00	30.28
Total	**0.04**	**0.20**	**0.30**	**0.00**	**0.05**	**0.01**	**0.06**	**0.00**	**0.01**	**0.01**	**0.00**	**65.71**	**65.71**	**0.00**	**0.00**	**65.77**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.14	0.92	0.64	0.00		0.05	0.05		0.05	0.05	0.00	114.63	114.63	0.01	0.00	114.87
Total	**0.14**	**0.92**	**0.64**	**0.00**		**0.05**	**0.05**		**0.05**	**0.05**	**0.00**	**114.63**	**114.63**	**0.01**	**0.00**	**114.87**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.02	0.18	0.13	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	35.47	35.47	0.00	0.00	35.49
Worker	0.02	0.02	0.17	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	30.24	30.24	0.00	0.00	30.28
Total	**0.04**	**0.20**	**0.30**	**0.00**	**0.05**	**0.01**	**0.06**	**0.00**	**0.01**	**0.01**	**0.00**	**65.71**	**65.71**	**0.00**	**0.00**	**65.77**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.32	1.32	0.00	0.00	1.33
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.01**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.32**	**1.32**	**0.00**	**0.00**	**1.33**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.08
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.08**	**0.00**	**0.00**	**0.08**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	1.32	1.32	0.00	0.00	1.33
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.01**	**0.01**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.32**	**1.32**	**0.00**	**0.00**	**1.33**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.08
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.08**	**0.00**	**0.00**	**0.08**

Sub-Appendix g

SCAQMD Rule 403

(Adopted May 7, 1976) (Amended November 6, 1992)
(Amended July 9, 1993) (Amended February 14, 1997)
(Amended December 11, 1998)(Amended April 2, 2004)
(Amended June 3, 2005)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

(1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.

(2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.

(3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.

(4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.

(5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

(6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.

(7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.

(8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.

(9) COMMERCIAL POULTRY RANCH means any building, structure, enclosure, or premises where more than 100 fowl are kept or maintained for the primary purpose of producing eggs or meat for sale or other distribution.

(10) CONFINED ANIMAL FACILITY means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including horses, sheep, goats, swine, beef cattle, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.

(11) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.

(12) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.

(13) DAIRY FARM is an operation on a property, or set of properties that are contiguous or separated only by a public right-of-way, that raises cows or

produces milk from cows for the purpose of making a profit or for a livelihood. Heifer and calf farms are dairy farms.

(14) DISTURBED SURFACE AREA means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:

(A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(B) been paved or otherwise covered by a permanent structure; or

(C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

(15) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(16) EARTH-MOVING ACTIVITIES means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.

(17) DUST CONTROL SUPERVISOR means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.

(18) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.

(19) HIGH WIND CONDITIONS means that instantaneous wind speeds exceed 25 miles per hour.

(20) INACTIVE DISTURBED SURFACE AREA means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.

(21) LARGE OPERATIONS means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic

meters (5,000 cubic yards) or more three times during the most recent 365-day period.

(22) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.

(23) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

(24) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.

(25) PM_{10} means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.

(26) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(27) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.

(28) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.

(29) SIMULTANEOUS SAMPLING means the operation of two PM_{10} samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.

(30) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange

County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

(31) STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.

(32) TRACK-OUT means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(33) TYPICAL ROADWAY MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.

(34) UNPAVED ROADS means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.

(35) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(36) WIND-DRIVEN FUGITIVE DUST means visible emissions from any disturbed surface area which is generated by wind action alone.

(37) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.

(d) Requirements

(1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

(A) the dust remains visible in the atmosphere beyond the property line of the emission source; or

(B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

(2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.

(3) No person shall cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM_{10} monitoring. If sampling is conducted, samplers shall be:

(A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM_{10}.

(B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.

(4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.

(5) No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.

(A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

(B) Pave the surface extending at least 100 feet and at least 20 feet wide.

(C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).

(6) Beginning January 1, 2006, any person who operates or authorizes the operation of a confined animal facility subject to this Rule shall implement the applicable conservation management practices specified in Table 4 of this Rule.

(e) Additional Requirements for Large Operations

(1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:

(A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;

(B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;

(C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

(D) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;

(E) identify a dust control supervisor that:

(i) is employed by or contracted with the property owner or developer;

(ii) is on the site or available on-site within 30 minutes during working hours;

(iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;

(iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and

(F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).

(2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).

(f) Compliance Schedule

The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation

Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

(1) The provisions of this Rule shall not apply to:

(A) Dairy farms.

(B) Confined animal facilities provided that the combined disturbed surface area within one continuous property line is one acre or less.

(C) Agricultural vegetative crop operations provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.

(D) Agricultural vegetative crop operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation management practices contained in the Rule 403 Agricultural Handbook;

(ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(E) Agricultural vegetative crop operations outside the South Coast Air Basin whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation management practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and

(ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(F) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.

(G) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.

(H) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.

(I) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.

(J) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:

(i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and

(ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.

(K) sandblasting operations.

(2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:

(A) When wind gusts exceed 25 miles per hour, provided that:

(i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;

(ii) records are maintained in accordance with subparagraph (e)(1)(C).

(B) To unpaved roads, provided such roads:

(i) are used solely for the maintenance of wind-generating equipment; or

(ii) are unpaved public alleys as defined in Rule 1186; or

(iii) are service roads that meet all of the following criteria:

(a) are less than 50 feet in width at all points along the road;

(b) are within 25 feet of the property line; and

(c) have a traffic volume less than 20 vehicle-trips per day.

(C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.

(3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.

(4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:

(A) Blasting operations which have been permitted by the California Division of Industrial Safety; and

(B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.

(5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for

each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

(6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.

(7) The provisions of subdivision (e) shall not apply to:

(A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.

(B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.

(C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.

(8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM_{10} pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	✓ Mix backfill soil with water prior to moving ✓ Dedicate water truck or high capacity hose to backfilling equipment ✓ Empty loader bucket slowly so that no dust plumes are generated ✓ Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	✓ Maintain live perennial vegetation where possible ✓ Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	✓ Follow permit conditions for crushing equipment ✓ Pre-water material prior to loading into crusher ✓ Monitor crusher emissions opacity ✓ Apply water to crushed material to prevent dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration ✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	✓ Limit vehicular traffic and disturbances on soils where possible ✓ If interior block walls are planned, install as early as possible ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	✓ Grade each project phase separately, timed to coincide with construction phase ✓ Upwind fencing can prevent material movement on site ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	✓ Use tarps or other suitable enclosures on haul trucks ✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage ✓ Comply with track-out prevention/mitigation requirements ✓ Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	✓ Apply water to materials to stabilize ✓ Maintain materials in a crusted condition ✓ Maintain effective cover over materials ✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ✓ Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs ✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	✓ Dedicate water truck or high capacity hose to screening operation ✓ Drop material through the screen slowly and minimize drop height ✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	✓ Limit size of staging area ✓ Limit vehicle speeds to 15 miles per hour ✓ Limit number and size of staging area entrances/exists
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	✓ Add or remove material from the downwind portion of the storage pile ✓ Maintain storage piles to avoid steep sides or faces

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching ✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 23114)	✓ Empty loader bucket such that no visible dust plumes are created ✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	✓ Haul waste material immediately off-site

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure		Guidance
Unpaved roads/parking lots	19-1	Stabilize soils to meet the applicable performance standards; and	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
	19-2	Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	
Vacant land	20-1	In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Table 2
DUST CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a)	Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

TABLE 3
CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Table 4
(Conservation Management Practices for Confined Animal Facilities)

SOURCE CATEGORY	CONSERVATION MANAGEMENT PRACTICES
Manure Handling **(Only applicable to Commercial Poultry Ranches)**	(1a) Cover manure prior to removing material off-site; AND (1b) Spread the manure before 11:00 AM and when wind conditions are less than 25 miles per hour; AND (1c) Utilize coning and drying manure management by removing manure at laying hen houses at least twice per year and maintain a base of no less than 6 inches of dry manure after clean out; or in lieu of complying with conservation management practice (1c), comply with conservation management practice (1d). (1d) Utilize frequent manure removal by removing the manure from laying hen houses at least every seven days and immediately thin bed dry the material.
Feedstock Handling	(2a) Utilize a sock or boot on the feed truck auger when filling feed storage bins.
Disturbed Surfaces	(3a) Maintain at least 70 percent vegetative cover on vacant portions of the facility; OR (3b) Utilize conservation tillage practices to manage the amount, orientation and distribution of crop and other plant residues on the soil surface year-round, while growing crops (if applicable) in narrow slots or tilled strips; OR (3c) Apply dust suppressants in sufficient concentrations and frequencies to maintain a stabilized surface.
Unpaved Roads	(4a) Restrict access to private unpaved roads either through signage or physical access restrictions and control vehicular speeds to no more than 15 miles per hour through worker notifications, signage, or any other necessary means; OR (4b) Cover frequently traveled unpaved roads with low silt content material (i.e., asphalt, concrete, recycled road base, or gravel to a minimum depth of four inches); OR (4c) Treat unpaved roads with water, mulch, chemical dust suppressants or other cover to maintain a stabilized surface.
Equipment Parking Areas	(5a) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (5b) Apply material with low silt content (i.e., asphalt, concrete, recycled road base, or gravel to a depth of four inches).