H Street/Benning Road Streetcar Project

Air Quality Analysis Technical Report

Prepared for:

District Department of Transportation

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Washington, DC

FINAL SUBMITTAL

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1.0 Summary

An air quality analysis was conducted to evaluate the air quality impacts relating to the H Street/Benning Road Streetcar project (Project). The Project, which is in the process of being implemented, will modify H Street/Benning Road from a traditional passenger automobile/bus roadway to a shared roadway for passenger automobile/bus and an electrified streetcar. The H Street/Benning Road Line is part of a larger streetcar plan within the District of Columbia (District) with the following objectives:

- Link neighborhoods with a modern, convenient and attractive transportation alternative.
- Provide quality service to attract and reach new transit ridership.
- Offer a broader range of transit options for District residents.
- Reduce short inner-city auto trips, parking demand, traffic congestion and air pollution.
- Encourage economic development and affordable housing options along streetcar corridors.

The Project was included in the most recent conformity determination for the region (The Air Quality Conformity Determination of the 2012 Constrained Long Range Plan – project ID 1669 – and the FY 2013-2018 Transportation Improvement Program – project ID 6031 – for the National Capital Region) which, on July 18, 2012, was found to conform to all requirements of the Clean Air Act Amendments of 1990. The project does not exceed any National Ambient Air Quality Standards (NAAQS) and was determined to be in conformance with the Air Quality Conformity requirements of the Clean Air Act.

The purpose of the air quality analysis was to evaluate the air quality impact of the Project in compliance with Federal transportation conformity rules found in 40 CFR 93, Subpart A which have been established to help ensure that federal actions or approvals do not impede state or local agency plans to attain or maintain compliance with the NAAQS. A project-level hot-spot analysis for CO was completed to show compliance with the NAAQS and transportation conformity rules.

The Project is not required to complete a $PM_{2.5}$ hot-spot analysis under transportation conformity rules found in 40 CFR 93.123(b)(ii) which specify the types of projects required to complete $PM_{2.5}$ hot-spot analyses, including for new or expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles. The Project is expected to decrease the number of diesel vehicles by replacing a small number of diesel buses. Therefore, no further quantitative analysis was completed for $PM_{2.5}$, but a qualitative analysis is presented in section 4.2.

The Project study area, which is defined for air quality purposes as the H Street/Benning Road Streetcar corridor, is an attainment area for all other pollutants.

In addition to a quantitative CO hot-spot analysis, this document also includes a brief discussion on Mobile Source Air Toxics (MSATs) emissions.

2.0 Introduction

An air quality analysis was conducted as a part of the environmental evaluation of the H Street/Benning Road Streetcar project extending from approximately 3rd Street on the Project's west end to Oklahoma Avenue on the Project's east end. A hot-spot analysis was conducted at each of the intersections at the termini of this line of the streetcar system (H Street/3rd Street on the west end, and Benning Road/26th Street-Oklahoma Avenue on the east end) and the most complex intersection between these points (the "starburst" intersection near H Street/Bladensburg Road) for AM peak hours, for the 2040 Build scenario. The H Street/Bladensburg Road intersection was selected to represent the intersection with level-of-service (LOS) D or worst with the greatest motor vehicle traffic volume of the intersections along the streetcar corridor. The H Street/3rd Street and Benning Road/26th Street-Oklahoma Avenue intersections were selected to analyze impacts at the bounds of the Project. The AM peak period was selected for analysis based on having similiar volumes to the PM peak and having the same or worse (depending on intersection) LOS. Because the Project is already in the process of being built, only the Build Alternative in the 2040 design year was evaluated to demonstrate compliance with NAAQS. In accordance with EPA guidance, if the Build Alternative shows modeled compliance with NAAQS, a no-build alternative does not need to be analyzed. This study evaluates the impacts of motor vehicle traffic, at or near the analyzed intersections, on ambient air concentrations of CO.

2.1 CO

This project lies within a federally designated air quality maintenance area for CO, in the District of Columbia. Federal conformity rules and guidance have been established to help ensure that federal actions or approvals do not impede state or local agency plans to attain or maintain compliance with NAAQS. The goal of conformity is to reduce, or eliminate the severity and number of, violations of the NAAQS. The NAAQS (not to be exceeded more than once per year at a given location) for CO levels are:

- 35 parts-per-million (ppm) for an average 1-hour concentration.
- 9 ppm for an average 8-hour concentration.

2.2 MSATs

In addition to the criteria air pollutants for which there are NAAQS, USEPA also regulates emissions of so-called air toxics, some of which are also classified as hazardous air pollutants (HAP) under the Clean Air Act. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources, area sources (such

as dry cleaners), and stationary sources (such as factories or refineries). The FHWA has issued guidance on the analysis of MSATs for highway projects in relation to the NEPA process (FHWA, 2009). The guidance describes a tiered approach for analyzing MSATs depending on specific project circumstances. A "first tier" quantitative analysis is recommended for projects involving the creation or alteration of a major intermodal freight facility, or that would add significant capacity to urban highways where projected annual average daily traffic (AADT) volumes is in the range of 140,000 or higher in the design year, and would be in close proximity to populated areas. A "second tier" qualitative analysis is recommended for projects which do not meet the above criteria, but which have some lesser potential for MSAT effects. The "third tier" of projects would be those with no-potential for MSAT impacts. The Project falls into the third category by virtue of the Project having no meaningful impact on traffic volume or vehicle mix. For projects meeting this description, FHWA recommends no analysis of MSATs.

3.0 Analysis Methodology

The analysis of CO impacts used two EPA-approved air quality models for modeling traffic air quality impacts in the design year of the Project, which was assumed to be 2040. The MOBILE6.2 vehicle emissions model was used to estimate year 2040 average vehicle CO emissions on project area roadways. The CAL3QHC atmospheric dispersion model was used to predict the maximum CO concentrations at the studied intersections. An analysis of the projected 2040 build conditions was completed for the three intersections. The analysis is based on projected 2040 traffic levels produced by Kittelson & Associates, Inc. (Synchro 7 Report dated 8/23/2012). Roadway geometrics were determined using aerial photographs taken from Google Earth and from lane indicator arrows shown on the previously mentioned Kittelson report.

3.1 MOBILE6.2 Emissions Modeling

A MOBILE6.2 model run was performed to estimate fleet-average CO emission rates for the roadway segments at the analyzed intersections under both free flow and queuing conditions. MOBILE6.2 model results were obtained for the analysis year (2040), for each of the vehicle speeds necessary (2.5 mph for queuing, 25 mph for free flow traffic at H Street/3rd Street, the "starburst" intersection near H Street/Bladensburg Road, and 26th Street and Oklahoma Avenue links on the east end of the Project, and 30 mph for Benning Road links near 26th Street and Oklahoma Avenue. All major MOBILE6.2 model inputs used model national default values, except for minimum and maximum temperatures. The local temperatures were based on published climate data (NCDC, 2011) for January, which is the worst-case month for vehicle CO emissions due to cold temperatures.

The MOBILE6.2 model results for CO emissions are summarized in Table 1. The idling emission factor shown was converted to grams/per-vehicle hour by multiplying the equivalent idling speed (2.5 mph) by the MOBILE6.2 output value, which is presented in

grams/per-vehicle mile. Converting the queuing emissions factor to grams/vehicle-hour was necessary for input into the CAL3QHC model.

Table 1: MOBILE6.2 CO Emission Rates for H Street/Benning Road Streetcar Project in 2040

Year Analyzed	Vehicle Speed (MPH)	CO Emissions Rate
2040	Idle (2.5)	69.04 g/Veh-Hr
2040	25	10.908 g/Veh-Mi
2040	30	g/Veh-Mi

3.2 CAL3QHC Dispersion Modeling

CAL3QHC is an EPA model used to predict CO pollutant concentrations from motor vehicles at roadway intersections. Inputs to CAL3QHC included traffic volumes taken from Kittelson & Associates, Inc. (Synchro 7 Report dated 8/23/2012) for the analysis year AM peak hours of traffic for each intersection. The intersections were modeled using a worst-case hour of meteorology. In this case, the worst-case meteorology consisted of a wind speed of 1.0 meter per second (m/s) and a stability class of "D," appropriate for "urban" areas. The CAL3QHC model uses an assumed worst-case snapshot of meteorological conditions and applies it to static levels of traffic to predict the highest 1-hour concentration of CO levels at the modeled intersections. An EPA-recommended default persistence factor of 0.7 is then applied to the 1-hour concentrations to determine an 8-hour concentration for comparison to NAAQS. The persistence factor accounts for variations in both meteorology and traffic over an 8-hour period as compared to a 1-hour period.

Geometry for input into CAL3QHC was determined using aerial photographs taken from Google Earth and from lane indicator arrows shown on the previously cited Kittelson report. Receptors were placed in accordance with guidance from the EPA's *Guideline for Modeling Carbon Monoxide from Roadway Intersections (1992)*. In general, this means that receptors were placed in areas of public access, and at least one foot outside the "mixing zone" of the roadway (i.e., the total width of the travel lanes, plus 3 meters [9.8 feet] on each of the outside travel lanes). Receptors were placed at each corner of the intersection, plus at sites 25 and 50 meters from the corner, and at "mid-block," which is assumed to be at the mid-point of the adjacent link (approximately 150 meters from the corner). CAL3QHC model runs for CO were completed for each of the intersections for the 2040 Build scenario. The CAL3QHC output results were added to the background concentration, summarized and compared against NAAQS.

3.2.1 Roadway and Receptor Geometry

For the 2040 H Street/3rd Street intersection, 28 receptors were placed in the vicinity of the intersection (Figure 1). For the "starburst" intersection near H Street/Bladensburg Road, 43 receptors were placed in the vicinity of the intersection (Figure 2). For the Benning Road/26th Street-Oklahoma Avenue intersection, 34 receptors were placed in

the vicinity of the intersection (Figure 3). Figures 1 through 3 document the general layout of the receptors modeled for each intersection. The following is a general description of the roadway geometries:

- 2040 H Street/3rd Street – At the intersection, there are two lanes approaching the intersection from the east and west. Each lane shares vehicle movements as shared through-left or shared through-right. One lane approaches the intersection from the north and south and is to be shared by vehicles turning left, going through, or turning right.
- 2040 H Street/Bladensburg Road – At the intersection, traffic can approach from the west (H Street – 3 through lanes, 1 dedicated left turn lane), southwest (Maryland – 2 lanes), south (15th Street – 2 lanes), east (Benning – 3 lanes, widening to 4 as it approaches the intersection), and north (Bladensburg – 3 lanes). In addition to being able to depart the intersection in these directions, traffic can also depart to the northwest (Florida).
- 2040 Benning Road/26th Street-Oklahoma Avenue – At both 26th and Oklahoma, there are three lanes approaching on Benning from the east and west. Benning Road at 26th and Oklahoma also has a dedicated left turn lane approaching from the west and east, respectively. The right lane approaching 26th from the east and Oklahoma from the west is a shared through-right lane. One lane approaching the intersection from the south on Oklahoma is to be shared by vehicles turning left or right. One lane approaching the intersection from the north on 26th is also to be shared by vehicles turning left or right.

Approach lanes nearest the intersection were input as both “free-flow” and “queue” lanes to account for their moving and idling components. Departure lanes, and approach lanes beyond the physical queue lane distance were input as free-flow only.

Any change in alignment would result in an equivalent change in receptors, and concentrations relative to the changed alignment location would be roughly the same as in the current analysis. Additionally, locations further from the intersection than the currently placed receptors would have lower CO concentrations (contributed by the roadway traffic) than the receptors in the analysis as concentrations fall with distance from the roadway.

3.2.2 Traffic Parameters

Traffic volume data and traffic signal information were developed for year 2040 forecasted AM peak hour traffic data, and were obtained from Kittelson & Associates, Inc. (Synchro 7 Report dated 8/23/2012).

The following inputs assumptions were used in the CAL3QHC modeling:

- The signals at two intersections (H Street/3rd Street and H Street/Bladensburg Road) will be pretimed (per Synchro 7 Report dated 8/23/2012).

- The signals at H Street/26th Street-Oklahoma Avenue will be actuated/coordinated (per Synchro 7 Report dated 8/23/2012).
- The arrival type will be worst progression.
- Clearance lost time is assumed to be two seconds.

No additional green-time was added for dedicated right turn lanes, even if those lanes allow for right-turns-on-red (RTOR). This was done to ensure conservatism. Additionally, no additional green-time was added for permitted, but not protected, times for dedicated left turn lanes. This was also done to ensure conservatism. The CAL3QHC input and output can be found as Appendix A at the end of this document.

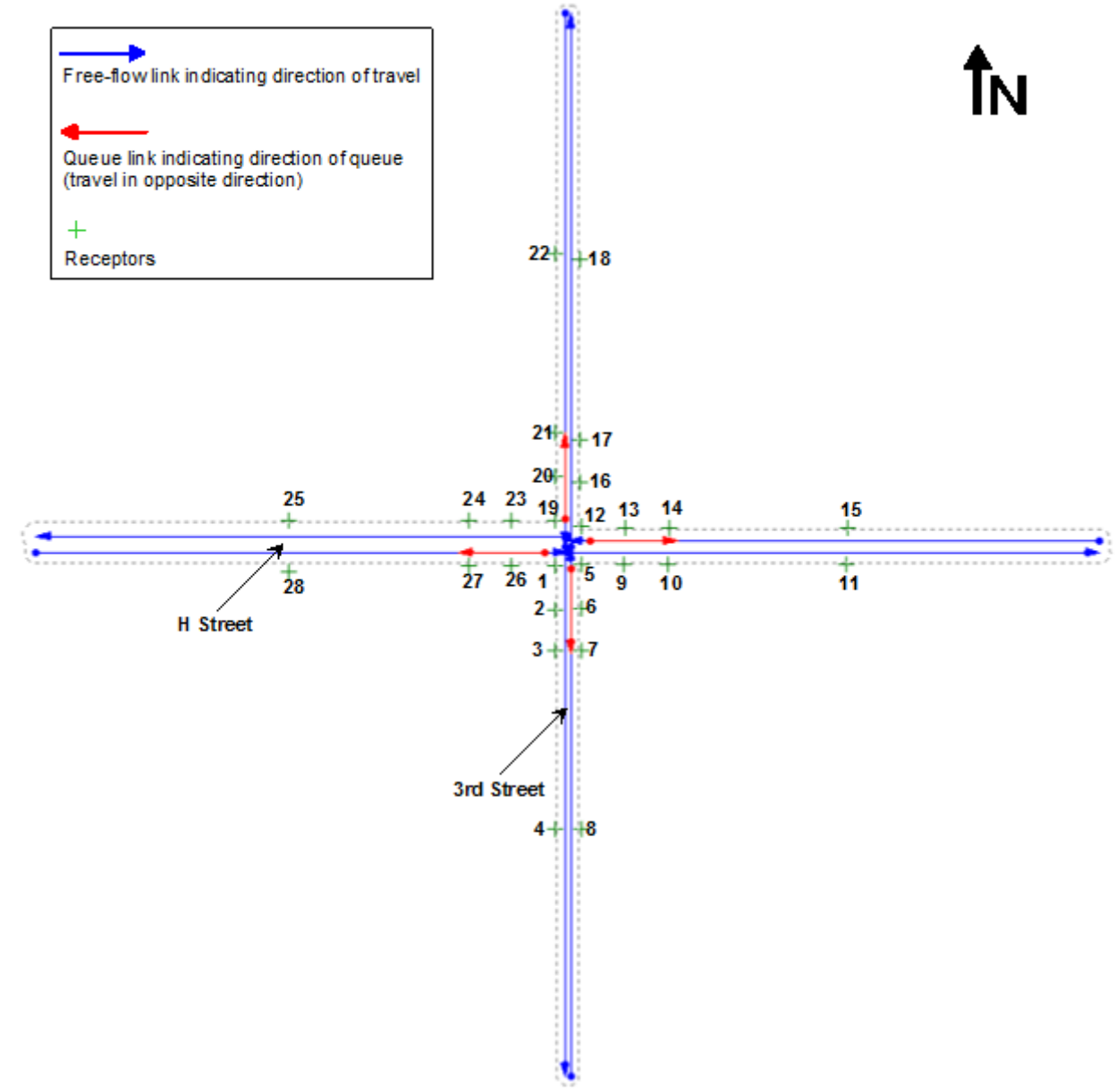

FIGURE 1 – Receptor Geometry for 2040 H Street and 3rd Street

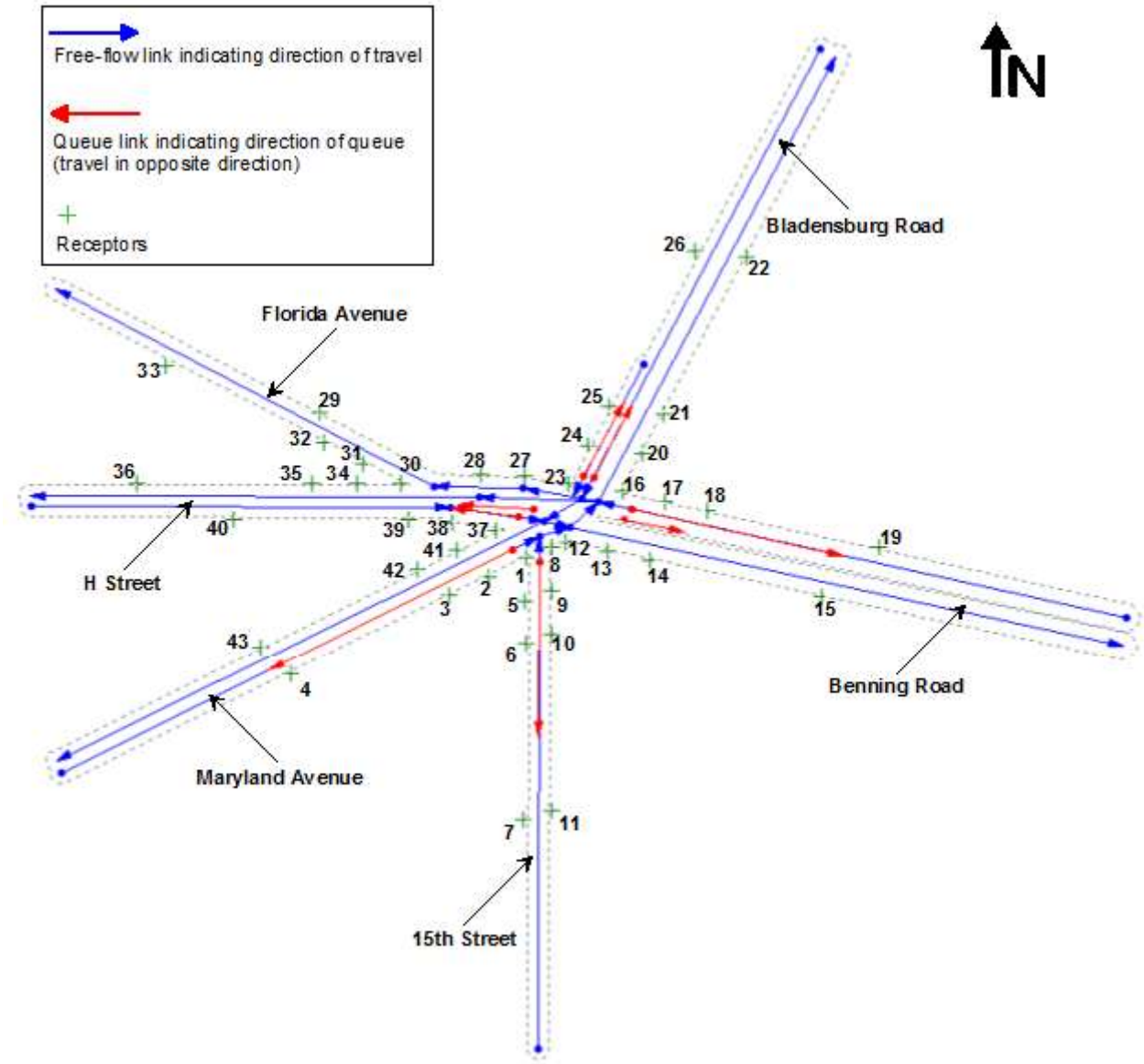

FIGURE 2 – Receptor Geometry for 2040 H Street/Bladensburg Road

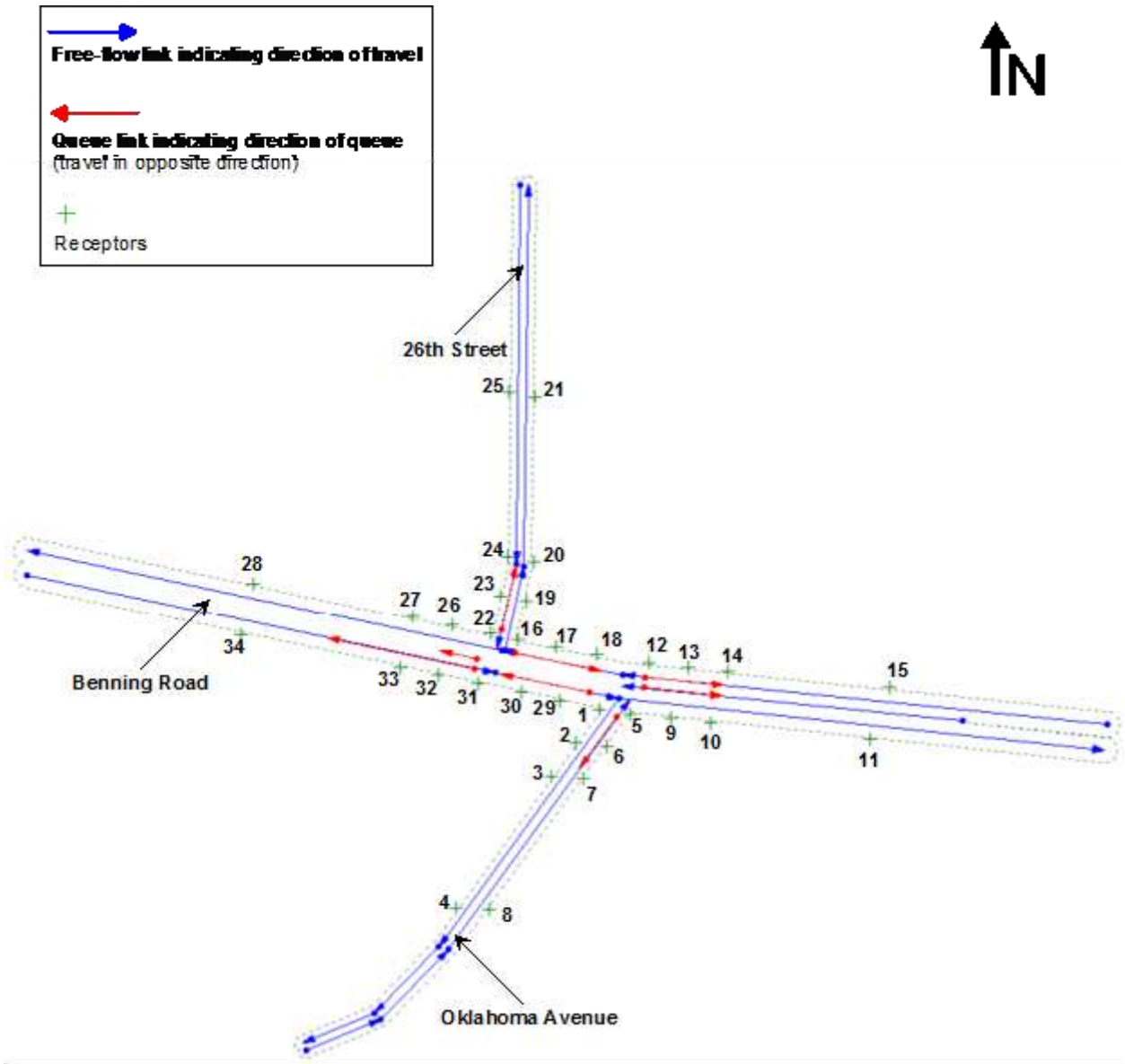

FIGURE 3 – Receptor Geometry for Benning Road/26th Street-Oklahoma Avenue

3.2.3 Background CO Concentrations

The background 1- and 8-hour CO concentrations for existing and 2040 levels are shown in Table 2. These background concentrations are the average of the second high (2H) concentration of the most recent three years of monitoring data at a nearby location (420 34th Street NE, which is along Benning Road to the east of the project corridor) which were available in EPA's AirData database (EPA, 2012). These monitoring data are shown in Table 2.

Table 2: CO Monitoring Data/Background Concentrations

Year	1-Hour (2H)	8-Hour (2H)
2009	4.2	3.8
2010	3.7	3.1
2011	2.7	2.3
Average	3.5	3.1

4.0 Results

4.1 CO

The results at the worst-case receptor for each intersection model run are documented in Table 3. The table shows the 1-hour CO concentrations and NAAQS, the 8-hour CO concentrations (assuming a persistence factor of 0.7) and NAAQS for each worst-case receptor including the background concentrations assumed for the study area.

Table 3 – Summary of Maximum Predicted CO Concentrations (ppm)

Intersection –2040 AM Peak Hour	Impacted Receptor [b]	1-Hour CO Results (ppm)				8-Hour CO Results (ppm)[a]			
		Modeled	Background	Total	NAAQS	Modeled	Background	Total	NAAQS
H Street/3rd Street	14	1.5	3.5	5.0	35	1.1	3.1	4.2	9
H Street/ Bladensburg Road	18	2.6	3.5	6.1	35	1.8	3.1	4.9	9
Benning Road/ 26th Street-Oklahoma Avenue	12	3.1	3.5	6.6	35	2.2	3.1	5.3	9

[a] 8-hour modeled concentrations are estimated based on an EPA-recommended default persistence factor of 0.7.

[b] See Figures 1 through 3.

4.2 PM2.5 Evaluation

In the March 10, 2006 Federal Register publication relating to PM2.5 hot-spot requirements in project-level conformity determinations, the EPA notes that PM2.5 is both a regional and a localized air quality concern in certain circumstances. Secondary formation from PM2.5 precursors (such as NOx and SO2) is a critical component to the regional PM2.5 air quality problem. EPA standards relating to low sulfur diesel fuels, and engine NOx and direct particulate matter emissions standards have helped to lower regional PM2.5 levels significantly over the past decade. Also, various regulatory programs have resulted in substantial decreases in SO2 and NOx emissions from utility and industrial plants over areas of the eastern US upwind of the project area within the past decade. These vehicle emissions standards and stationary source regulatory programs have no doubt been a major factor in improving air quality in the region.

Table 4 provides a summary of PM2.5 levels measured at a monitoring site within a mile east of the eastern end of the project corridor. This monitoring site, located at 420 34th Street NE in Washington, D.C., indicates compliance with the current NAAQS for PM2.5 over the past three full years (2009-2011) of monitoring data. In June 2012, EPA proposed a tighter annual PM2.5 NAAQS in the range of 12-13 µg/m3, which is expected to be finalized in late 2012. The monitoring data summarized in Table 4 would even show compliance with this tighter standard.

The project is expected to result in a slight decrease in diesel-related exhaust emissions, due to replacement of some bus service with the electric-drive streetcar service. While the electricity consumption by the streetcars may cause a slight increase in emissions from power generation in the region, such emissions would be too small and too far away to measurably affect air quality in the project area. Therefore, project implementation would result in a slight decrease in local diesel-related emissions of PM2.5, helping to contribute to the trend of improving local air quality.

Table 4: $PM_{2.5}$ Monitoring Data

Year	Approx. Dist. from Project[a]	24-Hour (98%) – Standard = 35 µg/m3	Annual (High) - Standard = 15.0 µg/m3
2009	0.7 miles E	24	10.5
2010		28	11.0
2011		25	10.4

[a] Monitor is located at 420 34th Street NE. Distance is measured from the Benning Road/Oklahoma Avenue intersection.

5.0 Conclusions

A project-level air quality analysis for CO has been conducted for the H Street/Benning Road Streetcar Project and no receptor sites are forecast to experience concentrations in excess of the current 1-hour or 8-hour NAAQS. Based on this analysis, it can be concluded that the project will have no significant adverse impact on air quality as a result of CO emissions.

6.0 References

1.United States Environmental Protection Agency, Office of Transportation and Air Quality, 2003. User's Guide to MOBILE6.1 and MOBILE6.2, Mobile Source Emission Factor Model. Publication EPA-420-R-03-010.

2. United States Environmental Protection Agency, Office of Air Quality Planning and Standards, 1995. User's Guide to CAL3QHC Version 2.0: A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections. Publication EPA-454/R-92-006 (revised).

3. United States Environmental Protection Agency, Office of Air Quality Planning and Standards, 1992. Guideline for Modeling Carbon Monoxide from Roadway Intersections. Publication EPA-454/R-92-005.

4. Federal Highway Administration (FHWA) 2009. "Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA," Memorandum by April Marchese, Director, Office of Natural and Human Environment, September 30, 2009.

5. Code of Federal Regulations (CFR). Title 40, Part 81. Designation of Areas for Air Quality Planning Purposes. 40 CFR 81.309, District of Columbia.

6. Code of Federal Regulations (CFR). Title 40, Part 93. Determining Conformity of Federal Actions to State or Federal Implementation Plans. 40 CFR 93.123 CO, PM_{10} and $PM_{2.5}$ hot-spot analyses.

7. United States Environmental Protection Agency, Air Quality System Database. http://www.epa.gov/airdata/ad_rep_mon.html, accessed September 5, 2012.

8. National Capital Region Transportation Planning Board, CLRP Long-Range Transportation Plan. http://www.mwcog.org/clrp/, accessed September 5, 2012.

9. National Climatic Data Center, 1981-2010 Monthly Normal Minimum and Maximum Temperatures for National Arboretum, DC, MD (station USC00186350). http://www1.ncdc.noaa.gov/pub/data/normals/1981-2010/products/temperature/, accessed September 5, 2012.

APPENDIX A: CAL3QHC Input and Output Files

H Street and 3rd Street – 2040 AM Peak, Input

```
'DC Streetcar' 60.00 200.000 0.00 0.00 28 1.0000 0 0
'1                                    ' 326381.00 4307594.57    1.80
'2                                    ' 326381.00 4307569.57    1.80
'3                                    ' 326381.00 4307544.57    1.80
'4                                    ' 326381.00 4307442.10    1.80
'5                                    ' 326395.62 4307594.85    1.80
'6                                    ' 326395.62 4307569.85    1.80
'7                                    ' 326395.62 4307544.85    1.80
'8                                    ' 326395.62 4307442.40    1.80
'9                                    ' 326420.62 4307594.85    1.80
'10                                   ' 326445.62 4307594.85    1.80
'11                                   ' 326548.02 4307594.85    1.80
'12                                   ' 326396.42 4307616.92    1.80
'13                                   ' 326421.42 4307616.42    1.80
'14                                   ' 326446.42 4307616.42    1.80
'15                                   ' 326548.82 4307616.42    1.80
'16                                   ' 326395.60 4307641.92    1.80
'17                                   ' 326395.60 4307666.92    1.80
'18                                   ' 326395.60 4307769.32    1.80
'19                                   ' 326381.00 4307620.70    1.80
'20                                   ' 326381.00 4307645.70    1.80
'21                                   ' 326381.00 4307670.70    1.80
'22                                   ' 326381.00 4307773.10    1.80
'23                                   ' 326356.00 4307620.70    1.80
'24                                   ' 326331.00 4307620.70    1.80
'25                                   ' 326228.60 4307620.70    1.80
'26                                   ' 326356.00 4307594.50    1.80
'27                                   ' 326331.00 4307594.50    1.80
'28                                   ' 326228.60 4307591.00    1.80
'H at 3rd' 12 1 0 'C'
    1
'NB 3rd App                           ' 'AG' 326389.86 4307300.58 326389.86 4307605.58 185.00 10.908  0.00  9.20
    2
'NB 3rd Queue                         ' 'AG' 326389.86 4307592.97 326389.86 4307542.97  0.00  3.20    1
       100   76    2.00  185 69.04 1705    1    1
    1
'NB 3rd Dep                           ' 'AG' 326389.86 4307605.58 326389.86 4307910.58 175.00 10.908  0.00  9.20
    1
'WB H App                             ' 'AG' 326693.13 4307608.97 326388.13 4307608.97 1585.00 10.908  0.00 12.40
    2
'WB H Queue                           ' 'AG' 326401.23 4307608.97 326451.23 4307608.97  0.00  6.40    2
       100   37    2.00 1585 69.04 1592    1    1
    1
'WB H Dep                             ' 'AG' 326388.37 4307611.57 326083.37 4307611.57 1640.00 10.908  0.00 15.60
    1
'SB 3rd App                           ' 'AG' 326386.66 4307910.53 326386.66 4307605.53 135.00 10.908  0.00  9.20
    2
'SB 3rd Queue                         ' 'AG' 326386.66 4307620.81 326386.66 4307670.81  0.00  3.20    1
       100   76    2.00  135 69.04 1528    1    1
    1
```

```
'SB 3rd Dep                          ' 'AG' 326386.66 4307605.53 326386.66 4307300.53 115.00 10.908  0.00  9.20
    1
'EB H App                            ' 'AG' 326083.31 4307602.13 326388.31 4307602.13 670.00 10.908  0.00 12.40
    2
'EB H Queue                          ' 'AG' 326375.28 4307602.19 326325.28 4307602.19  0.00  6.40    2
       100   27    2.00  670 69.04 1500    1    1
    1
'EB H Dep                            ' 'AG' 326388.26 4307602.19 326693.26 4307602.19 605.00 10.908  0.00 12.40
 1.00   0.00 4 1000.00  0.00 'Y'   5   0  72
```

H Street and 3rd Street – 2040 AM Peak, Output

JOB: DC Streetcar RUN: H at 3rd

DATE : 9/ 7/12
TIME : 2:51:19

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 200. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

	LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	LENGTH (M)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)
1.	NB 3rd App	326389.88	4307300.50	326389.88	4307605.50	305.	360.	AG	185.	10.9	0.0	9.2		
2.	NB 3rd Queue	326389.88	4307593.00	326389.88	4307561.50	31.	180.	AG	141.	100.0	0.0	3.2	0.54	5.2
3.	NB 3rd Dep	326389.88	4307605.50	326389.88	4307910.50	305.	360.	AG	175.	10.9	0.0	9.2		
4.	WB H App	326693.12	4307609.00	326388.12	4307609.00	305.	270.	AG	1585.	10.9	0.0	12.4		
5.	WB H Queue	326401.22	4307609.00	326464.31	4307609.00	63.	89.	AG	137.	100.0	0.0	6.4	0.84	10.5
6.	WB H Dep	326388.38	4307611.50	326083.38	4307611.50	305.	270.	AG	1640.	10.9	0.0	15.6		
7.	SB 3rd App	326386.66	4307910.50	326386.66	4307605.50	305.	180.	AG	135.	10.9	0.0	9.2		
8.	SB 3rd Queue	326386.66	4307621.00	326386.66	4307643.00	22.	360.	AG	141.	100.0	0.0	3.2	0.44	3.7
9.	SB 3rd Dep	326386.66	4307605.50	326386.66	4307300.50	305.	180.	AG	115.	10.9	0.0	9.2		
10.	EB H App	326083.31	4307602.00	326388.31	4307602.00	305.	90.	AG	670.	10.9	0.0	12.4		
11.	EB H Queue	326375.28	4307602.00	326360.22	4307602.00	15.	268.	AG	100.	100.0	0.0	6.4	0.32	2.5
12.	EB H Dep	326388.25	4307602.00	326693.25	4307602.00	305.	90.	AG	605.	10.9	0.0	12.4		

JOB: DC Streetcar RUN: H at 3rd

DATE : 9/ 7/12
TIME : 2:51:19

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. NB 3rd Queue	100	76	2.0	185	1705	69.04	1	1
5. WB H Queue	100	37	2.0	1585	1592	69.04	1	1
8. SB 3rd Queue	100	76	2.0	135	1528	69.04	1	1
11. EB H Queue	100	27	2.0	670	1500	69.04	1	1

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. 1	326381.00	4307594.50	1.8
2. 2	326381.00	4307569.50	1.8
3. 3	326381.00	4307544.50	1.8
4. 4	326381.00	4307442.00	1.8
5. 5	326395.62	4307595.00	1.8
6. 6	326395.62	4307570.00	1.8
7. 7	326395.62	4307545.00	1.8
8. 8	326395.62	4307442.50	1.8
9. 9	326420.62	4307595.00	1.8
10. 10	326445.62	4307595.00	1.8
11. 11	326548.03	4307595.00	1.8
12. 12	326396.41	4307617.00	1.8
13. 13	326421.41	4307616.50	1.8
14. 14	326446.41	4307616.50	1.8
15. 15	326548.81	4307616.50	1.8
16. 16	326395.59	4307642.00	1.8
17. 17	326395.59	4307667.00	1.8
18. 18	326395.59	4307769.50	1.8
19. 19	326381.00	4307620.50	1.8
20. 20	326381.00	4307645.50	1.8
21. 21	326381.00	4307670.50	1.8
22. 22	326381.00	4307773.00	1.8
23. 23	326356.00	4307620.50	1.8
24. 24	326331.00	4307620.50	1.8
25. 25	326228.59	4307620.50	1.8
26. 26	326356.00	4307594.50	1.8
27. 27	326331.00	4307594.50	1.8
28. 28	326228.59	4307591.00	1.8

JOB: DC Streetcar RUN: H at 3rd

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	* 0.9	0.3	0.2	0.1	0.8	0.6	0.3	0.1	0.8	0.8	0.6	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.2
5.	* 0.8	0.4	0.4	0.2	0.8	0.5	0.2	0.2	0.8	0.8	0.6	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.2
10.	* 0.9	0.4	0.6	0.3	0.7	0.4	0.4	0.1	0.8	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2
15.	* 0.9	0.4	0.5	0.3	0.7	0.4	0.3	0.1	0.8	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2
20.	* 0.7	0.7	0.6	0.3	0.7	0.4	0.3	0.1	0.8	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2
25.	* 0.8	0.8	0.6	0.3	0.7	0.4	0.3	0.1	0.8	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2
30.	* 0.6	0.8	0.6	0.3	0.8	0.4	0.3	0.1	0.9	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.2
35.	* 0.7	0.9	0.6	0.3	0.8	0.4	0.3	0.1	0.9	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.2
40.	* 0.8	0.9	0.6	0.3	0.8	0.4	0.4	0.1	0.9	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.2
45.	* 0.7	0.8	0.5	0.2	0.9	0.4	0.4	0.1	0.9	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.2
50.	* 0.7	0.8	0.5	0.2	1.1	0.4	0.3	0.1	1.1	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2
55.	* 0.9	0.8	0.4	0.2	1.1	0.4	0.3	0.1	1.1	0.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2
60.	* 1.0	0.8	0.4	0.2	1.1	0.4	0.3	0.0	1.0	0.9	0.8	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.1
65.	* 1.1	0.8	0.4	0.1	1.1	0.4	0.3	0.0	1.0	0.9	0.8	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.1
70.	* 1.2	0.7	0.4	0.1	1.1	0.3	0.2	0.0	1.0	0.8	0.8	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.5	0.1
75.	* 1.2	0.6	0.3	0.1	1.1	0.3	0.2	0.0	1.0	0.9	0.8	0.3	0.2	0.2	0.2	0.0	0.0	0.0	0.4	0.1
80.	* 1.2	0.6	0.2	0.1	1.1	0.3	0.1	0.0	1.0	0.9	0.7	0.4	0.6	0.4	0.3	0.0	0.0	0.0	0.6	0.1
85.	* 1.0	0.6	0.2	0.1	0.9	0.2	0.1	0.0	0.8	0.7	0.7	0.8	0.8	0.6	0.6	0.1	0.0	0.0	0.8	0.2
90.	* 0.8	0.4	0.1	0.1	0.7	0.1	0.0	0.0	0.6	0.6	0.6	1.0	1.0	0.9	0.7	0.1	0.0	0.0	0.9	0.2
95.	* 0.7	0.4	0.1	0.1	0.4	0.0	0.0	0.0	0.4	0.4	0.4	1.3	1.4	1.1	0.9	0.3	0.1	0.0	1.1	0.4
100.	* 0.4	0.3	0.1	0.1	0.3	0.0	0.0	0.0	0.3	0.3	0.2	1.5	1.4	1.2	1.0	0.3	0.1	0.0	1.2	0.5
105.	* 0.4	0.3	0.1	0.1	0.2	0.0	0.0	0.0	0.2	0.2	0.1	1.5	1.5	1.3	1.1	0.4	0.1	0.0	1.3	0.5
110.	* 0.3	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	1.4	1.5	1.3	1.0	0.5	0.3	0.0	1.2	0.7
115.	* 0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.3	1.0	0.5	0.3	0.0	1.2	0.8
120.	* 0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.2	0.9	0.5	0.3	0.1	1.2	0.8
125.	* 0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.3	1.2	0.9	0.5	0.3	0.1	1.0	0.8
130.	* 0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.3	1.3	0.9	0.5	0.4	0.1	1.1	0.9
135.	* 0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.2	1.2	0.8	0.4	0.4	0.1	0.9	0.9
140.	* 0.5	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.2	1.2	0.8	0.4	0.4	0.1	0.8	0.9
145.	* 0.5	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.2	1.2	0.8	0.4	0.4	0.1	0.9	0.9
150.	* 0.5	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.1	1.1	0.7	0.4	0.4	0.1	0.9	1.0
155.	* 0.5	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	1.0	0.6	0.4	0.4	0.1	0.9	0.8
160.	* 0.4	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	1.0	0.6	0.4	0.3	0.1	1.0	0.8
165.	* 0.4	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	1.0	0.6	0.4	0.3	0.1	0.9	0.6
170.	* 0.3	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.7	1.0	1.0	0.6	0.4	0.2	0.1	0.9	0.6
175.	* 0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.8	1.0	1.0	0.6	0.5	0.2	0.2	0.8	0.7
180.	* 0.3	0.2	0.2	0.1	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.8	1.0	1.0	0.6	0.5	0.4	0.1	0.9	0.5
185.	* 0.0	0.0	0.0	0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.8	1.0	1.0	0.6	0.5	0.4	0.1	0.7	0.4
190.	* 0.0	0.0	0.0	0.0	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.8	1.0	1.0	0.6	0.5	0.4	0.3	0.7	0.3
195.	* 0.0	0.0	0.0	0.0	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.8	1.0	1.0	0.6	0.4	0.3	0.3	0.7	0.3
200.	* 0.0	0.0	0.0	0.0	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.9	1.0	1.0	0.6	0.6	0.4	0.3	0.7	0.3
205.	* 0.0	0.0	0.0	0.0	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.9	1.1	1.0	0.6	0.6	0.5	0.3	0.7	0.3

JOB: DC Streetcar RUN: H at 3rd

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	0.0	0.0	0.0	0.0	0.5	0.3	0.1	0.1	0.0	0.0	0.0	0.8	1.2	1.1	0.7	0.6	0.5	0.3	0.8	0.3
215.	0.0	0.0	0.0	0.0	0.5	0.3	0.1	0.1	0.0	0.0	0.0	0.9	1.3	1.2	0.8	0.6	0.5	0.2	0.8	0.4
220.	0.0	0.0	0.0	0.0	0.5	0.3	0.1	0.1	0.1	0.0	0.0	0.8	1.3	1.2	0.8	0.8	0.4	0.2	0.8	0.4
225.	0.0	0.0	0.0	0.0	0.4	0.4	0.1	0.1	0.1	0.0	0.0	0.9	1.3	1.2	0.8	0.8	0.4	0.2	0.9	0.4
230.	0.0	0.0	0.0	0.0	0.4	0.4	0.1	0.1	0.1	0.0	0.0	1.0	1.2	1.3	0.9	0.8	0.4	0.2	1.0	0.4
235.	0.0	0.0	0.0	0.0	0.4	0.4	0.1	0.1	0.1	0.0	0.0	1.1	1.3	1.4	0.9	0.8	0.4	0.2	1.0	0.4
240.	0.0	0.0	0.0	0.0	0.3	0.4	0.1	0.1	0.1	0.0	0.0	1.1	1.3	1.3	0.9	0.8	0.4	0.2	0.9	0.4
245.	0.0	0.0	0.0	0.0	0.3	0.4	0.1	0.1	0.1	0.1	0.0	1.2	1.3	1.4	1.0	0.7	0.4	0.1	1.0	0.4
250.	0.1	0.0	0.0	0.0	0.4	0.4	0.1	0.1	0.1	0.1	0.1	1.3	1.2	1.4	1.0	0.7	0.4	0.1	1.0	0.4
255.	0.2	0.0	0.0	0.0	0.4	0.4	0.1	0.1	0.4	0.3	0.2	1.3	1.4	1.5	1.2	0.7	0.4	0.1	1.1	0.4
260.	0.3	0.0	0.0	0.0	0.5	0.4	0.1	0.1	0.4	0.4	0.4	1.2	1.2	1.5	1.3	0.7	0.2	0.1	1.1	0.3
265.	0.4	0.0	0.0	0.0	0.7	0.5	0.1	0.1	0.5	0.6	0.5	1.3	1.3	1.3	1.1	0.6	0.2	0.1	1.0	0.3
270.	0.7	0.2	0.0	0.0	0.8	0.6	0.1	0.1	0.7	0.8	0.8	1.1	1.0	1.1	1.0	0.5	0.2	0.1	0.8	0.1
275.	0.9	0.2	0.1	0.0	1.0	0.6	0.2	0.1	0.9	1.0	0.9	0.9	0.8	0.9	0.7	0.3	0.1	0.1	0.7	0.1
280.	1.0	0.3	0.1	0.0	1.1	0.7	0.2	0.1	0.9	1.1	0.9	0.8	0.7	0.5	0.4	0.2	0.1	0.1	0.4	0.0
285.	1.1	0.3	0.2	0.0	1.1	0.7	0.3	0.1	0.9	1.2	1.1	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.2	0.0
290.	1.1	0.3	0.3	0.0	1.1	0.8	0.4	0.1	1.0	1.2	0.8	0.4	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.0
295.	1.0	0.4	0.3	0.0	1.0	0.8	0.4	0.1	1.1	1.0	0.8	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.0
300.	1.0	0.4	0.3	0.0	0.9	0.8	0.4	0.2	0.9	1.1	0.8	0.4	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
305.	1.0	0.3	0.3	0.1	0.8	0.7	0.4	0.2	0.9	1.0	0.8	0.3	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0
310.	0.9	0.3	0.3	0.1	0.9	0.7	0.4	0.2	1.1	1.0	0.8	0.3	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0
315.	0.9	0.3	0.3	0.1	0.8	0.8	0.4	0.2	1.0	0.9	0.6	0.3	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
320.	0.8	0.3	0.3	0.1	0.8	0.8	0.4	0.2	0.9	0.9	0.6	0.3	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
325.	0.7	0.3	0.3	0.1	0.9	0.8	0.5	0.2	0.9	0.9	0.6	0.3	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
330.	0.7	0.4	0.3	0.1	1.0	0.7	0.5	0.2	0.8	0.8	0.6	0.3	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0
335.	0.7	0.4	0.3	0.1	0.7	0.7	0.4	0.2	0.8	0.8	0.6	0.4	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0
340.	0.6	0.4	0.2	0.1	0.9	0.7	0.5	0.2	0.8	0.8	0.6	0.4	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0
345.	0.6	0.4	0.2	0.1	0.9	0.7	0.4	0.2	0.8	0.8	0.6	0.3	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0
350.	0.6	0.3	0.2	0.1	0.9	0.6	0.5	0.2	0.8	0.8	0.6	0.3	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.0
355.	0.7	0.3	0.3	0.1	0.9	0.6	0.5	0.1	0.8	0.8	0.6	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1
360.	0.9	0.3	0.2	0.1	0.8	0.6	0.3	0.1	0.8	0.8	0.6	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.2
MAX	1.2	0.9	0.6	0.3	1.1	0.8	0.5	0.2	1.1	1.2	1.1	1.5	1.5	1.5	1.3	0.8	0.5	0.3	1.3	1.0
DEGR.	70	35	10	10	280	290	325	5	50	285	285	100	105	255	260	220	205	190	105	150

JOB: DC Streetcar RUN: H at 3rd

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	0.2	0.1	0.0	0.0	0.0	0.6	0.6	0.5
5.	0.2	0.2	0.0	0.0	0.0	0.6	0.6	0.5
10.	0.2	0.2	0.0	0.0	0.0	0.7	0.6	0.5
15.	0.2	0.2	0.0	0.0	0.0	0.7	0.6	0.5
20.	0.2	0.2	0.0	0.0	0.0	0.7	0.6	0.5
25.	0.2	0.2	0.0	0.0	0.0	0.7	0.6	0.5
30.	0.2	0.2	0.0	0.0	0.0	0.8	0.6	0.6
35.	0.2	0.2	0.0	0.0	0.0	0.9	0.6	0.6
40.	0.2	0.2	0.0	0.0	0.0	1.0	0.7	0.6
45.	0.2	0.2	0.0	0.0	0.0	1.0	0.7	0.6
50.	0.2	0.2	0.1	0.0	0.0	1.1	0.7	0.6
55.	0.2	0.2	0.1	0.0	0.0	0.9	0.7	0.6
60.	0.1	0.1	0.1	0.1	0.1	1.1	0.8	0.6
65.	0.1	0.1	0.2	0.1	0.1	1.1	0.8	0.7
70.	0.1	0.1	0.2	0.1	0.1	1.2	1.0	0.7
75.	0.1	0.1	0.3	0.2	0.2	1.1	1.1	0.8
80.	0.1	0.1	0.5	0.3	0.4	1.1	1.1	0.6
85.	0.1	0.1	0.8	0.7	0.6	1.1	0.9	0.6
90.	0.1	0.1	0.9	1.0	0.8	0.8	0.7	0.5
95.	0.2	0.1	1.0	1.1	1.0	0.6	0.5	0.3
100.	0.2	0.1	1.1	1.3	1.0	0.4	0.4	0.3
105.	0.2	0.1	1.1	1.2	1.2	0.3	0.3	0.0
110.	0.4	0.1	1.2	1.0	1.0	0.1	0.1	0.0
115.	0.4	0.1	1.1	0.9	1.0	0.1	0.0	0.0
120.	0.4	0.2	0.9	0.9	0.9	0.1	0.0	0.0
125.	0.6	0.3	1.0	0.8	0.9	0.1	0.0	0.0
130.	0.6	0.3	1.0	0.8	0.9	0.1	0.0	0.0
135.	0.6	0.3	0.9	0.8	0.8	0.1	0.0	0.0
140.	0.6	0.3	0.9	0.7	0.7	0.0	0.0	0.0
145.	0.5	0.3	0.9	0.7	0.7	0.0	0.0	0.0
150.	0.5	0.3	0.8	0.6	0.6	0.0	0.0	0.0
155.	0.5	0.3	0.7	0.6	0.6	0.0	0.0	0.0
160.	0.4	0.3	0.7	0.6	0.6	0.0	0.0	0.0
165.	0.4	0.3	0.7	0.6	0.6	0.0	0.0	0.0
170.	0.5	0.3	0.7	0.6	0.6	0.0	0.0	0.0
175.	0.4	0.2	0.6	0.6	0.6	0.0	0.0	0.0
180.	0.3	0.1	0.7	0.7	0.7	0.0	0.0	0.0
185.	0.2	0.1	0.6	0.6	0.6	0.0	0.0	0.0
190.	0.2	0.1	0.6	0.6	0.6	0.0	0.0	0.0
195.	0.3	0.1	0.6	0.6	0.6	0.0	0.0	0.0
200.	0.3	0.1	0.6	0.6	0.6	0.0	0.0	0.0
205.	0.3	0.1	0.6	0.6	0.6	0.0	0.0	0.0

JOB: DC Streetcar RUN: H at 3rd

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	0.3	0.1	0.6	0.6	0.6	0.0	0.0	0.0
215.	0.3	0.1	0.7	0.7	0.7	0.0	0.0	0.0
220.	0.3	0.1	0.7	0.7	0.7	0.0	0.0	0.0
225.	0.3	0.1	0.8	0.8	0.8	0.0	0.0	0.0
230.	0.3	0.1	0.9	0.9	0.9	0.0	0.0	0.0
235.	0.3	0.1	0.9	0.9	0.9	0.0	0.0	0.0
240.	0.3	0.1	0.9	0.9	0.9	0.0	0.0	0.0
245.	0.3	0.0	1.0	1.0	1.0	0.0	0.0	0.0
250.	0.3	0.0	1.0	1.0	1.0	0.1	0.1	0.0
255.	0.2	0.0	1.1	1.1	1.1	0.2	0.2	0.0
260.	0.1	0.0	1.1	1.1	0.9	0.3	0.3	0.2
265.	0.1	0.0	0.9	0.9	0.9	0.4	0.4	0.2
270.	0.0	0.0	0.8	0.8	0.7	0.6	0.6	0.4
275.	0.0	0.0	0.6	0.6	0.5	0.8	0.8	0.4
280.	0.0	0.0	0.4	0.4	0.3	0.9	0.9	0.5
285.	0.0	0.0	0.2	0.2	0.2	0.9	0.9	0.7
290.	0.0	0.0	0.1	0.1	0.1	0.9	0.9	0.7
295.	0.0	0.0	0.1	0.1	0.1	0.8	0.8	0.7
300.	0.0	0.0	0.1	0.1	0.1	0.8	0.8	0.6
305.	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.6
310.	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6
315.	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6
320.	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.6
325.	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6
330.	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6
335.	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.5
340.	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.5
345.	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.5
350.	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.5
355.	0.1	0.0	0.0	0.0	0.0	0.6	0.6	0.5
360.	0.2	0.1	0.0	0.0	0.0	0.6	0.6	0.5
MAX	0.6	0.3	1.2	1.3	1.2	1.2	1.1	0.8
DEGR.	125	125	110	100	105	70	75	75

THE HIGHEST CONCENTRATION OF 1.50 PPM OCCURRED AT RECEPTOR REC14.

H Street and Bladensburg Road – 2040 AM Peak, Input

```
'DC Streetcar' 60.00 200.000 0.00 0.00 43 1.0000 0 0
'1                                    ' 327976.94 4307536.96    1.80
'2                                    ' 327954.60 4307525.63    1.80
'3                                    ' 327931.94 4307514.72    1.80
'4                                    ' 327840.93 4307469.23    1.80
'5                                    ' 327975.76 4307511.51    1.80
'6                                    ' 327976.17 4307487.53    1.80
'7                                    ' 327974.96 4307384.12    1.80
'8                                    ' 327991.66 4307543.01    1.80
'9                                    ' 327991.55 4307517.99    1.80
'10                                   ' 327991.26 4307492.81    1.80
'11                                   ' 327991.19 4307389.25    1.80
'12                                   ' 327999.27 4307545.72    1.80
'13                                   ' 328023.67 4307540.32    1.80
'14                                   ' 328048.07 4307535.23    1.80
'15                                   ' 328147.50 4307513.84    1.80
'16                                   ' 328032.19 4307574.92    1.80
'17                                   ' 328056.41 4307569.42    1.80
'18                                   ' 328080.95 4307564.17    1.80
'19                                   ' 328180.67 4307542.55    1.80
'20                                   ' 328043.81 4307597.27    1.80
'21                                   ' 328055.54 4307619.46    1.80
'22                                   ' 328103.99 4307709.85    1.80
'23                                   ' 328000.82 4307579.54    1.80
'24                                   ' 328012.68 4307601.47    1.80
'25                                   ' 328024.54 4307623.55    1.80
'26                                   ' 328073.78 4307713.54    1.80
'27                                   ' 327975.84 4307584.02    1.80
'28                                   ' 327950.69 4307584.65    1.80
'29                                   ' 327857.60 4307620.76    1.80
'30                                   ' 327904.48 4307579.54    1.80
'31                                   ' 327882.14 4307591.07    1.80
'32                                   ' 327859.68 4307602.97    1.80
'33                                   ' 327768.47 4307647.07    1.80
'34                                   ' 327878.71 4307579.60    1.80
'35                                   ' 327853.12 4307579.43    1.80
'36                                   ' 327752.14 4307579.89    1.80
'37                                   ' 327959.43 4307552.75    1.80
'38                                   ' 327934.14 4307556.60    1.80
'39                                   ' 327908.99 4307558.57    1.80
'40                                   ' 327807.28 4307558.76    1.80
'41                                   ' 327936.63 4307541.37    1.80
'42                                   ' 327913.94 4307530.16    1.80
'43                                   ' 327822.85 4307484.98    1.80
'H and Bladensburg AM Build' 27 1 0 'C'
    1
'NB Maryland App                      ' 'AG' 327707.91 4307411.49 327984.26 4307548.68 405.00 10.908  0.00 12.40
    2
'NB Maryland Thru Queue               ' 'AG' 327968.70 4307540.84 327828.55 4307471.33  0.00  6.40    2
       100   81    3.00  405 69.04 1380    1    1
    1
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'NB 15th App                          ' 'AG' 327983.68 4307252.17 327984.26 4307548.68 425.00 10.908  0.00 12.40
    2
'NB 15th Thru Queue                   ' 'AG' 327984.12 4307533.88 327983.89 4307432.27  0.00  6.40    2
       100   83    2.00  425 69.04 1504    1    1
    1
'WB Benning App                       ' 'AG' 328323.19 4307501.97 328018.52 4307568.65 2275.00 10.908  0.00 15.60
    2
'WB Benning Thru Queue                ' 'AG' 328037.46 4307564.55 328159.47 4307537.83  0.00  9.60    3
       100   52    2.00 1734 69.04 1477    1    1
    1
'SB Bladensburg App                   ' 'AG' 328146.85 4307830.30 328008.84 4307570.74 670.00 10.908  0.00 12.40
    2
'SB Bladensburg Thru Queue            ' 'AG' 328015.47 4307583.03 328037.87 4307625.15  0.00  6.40    2
       100   62    0.00  670 69.04 1284    1    1
    1
'EB H Street App 1                    ' 'AG' 327691.00 4307566.30 327932.77 4307565.78 830.00 10.908  0.00 12.40
    1
'EB H Street App 2                    ' 'AG' 327932.77 4307565.78 327987.01 4307557.95 830.00 10.908  0.00 15.60
    2
'EB H Street Queue                    ' 'AG' 327971.98 4307560.25 327932.77 4307565.78  0.00  9.60    3
       100   40    2.00  635 69.04 1538    1    1
    1
'SB Maryland Dep                      ' 'AG' 327987.01 4307557.95 327705.41 4307418.43 375.00 10.908  0.00 12.40
    1
'EB H Street Intersection             ' 'AG' 327987.01 4307557.95 328002.18 4307554.12 595.00 10.908  0.00 15.60
    1
'EB Benning Dep                       ' 'AG' 328002.20 4307554.15 328321.40 4307485.59 735.00 10.908  0.00 15.60
    1
'NB Maryland Intersection 1           ' 'AG' 327984.20 4307548.71 328002.07 4307554.17 830.00 10.908  1.00 12.40
    1
'NB Maryland Intersection 2           ' 'AG' 328002.08 4307554.17 328018.52 4307568.65 525.00 10.908  0.00 12.40
    1
'NB Blandensburg Dep                  ' 'AG' 328018.52 4307568.65 328155.29 4307825.66 830.00 10.908  0.00 15.60
    1
'WB Florida Dep 1                     ' 'AG' 328018.52 4307568.65 327975.24 4307576.53 1188.00 10.908  0.00 12.40
    1
'WB Florida Dep 2                     ' 'AG' 327975.24 4307576.53 327923.29 4307578.20 1188.00 10.908  0.00 12.40
    1
'WB Florida Dep 3                     ' 'AG' 327923.29 4307578.20 327705.20 4307691.91 1188.00 10.908  0.00 12.40
    1
'WB H Street Dep 1                    ' 'AG' 328018.52 4307568.65 327949.38 4307571.98 1583.00 10.908  0.00 12.40
    1
'WB H Street Dep 2                    ' 'AG' 327949.38 4307571.98 327690.36 4307572.46 1583.00 10.908  0.00 12.40
    1
'SB Blandensburg Intersection         ' 'AG' 328008.82 4307570.59 327987.01 4307557.95 335.00 10.908  0.00 12.40
    2
'EB H Street L Queue                  ' 'AG' 327980.73 4307564.38 327937.24 4307567.49  0.00  3.20    1
       100   86    2.00  195 69.04 1646    1    1
    2
'WB Benning L Queue                   ' 'AG' 328033.16 4307558.75 328067.93 4307551.29  0.00  3.20    1
       100   52    2.00  541 69.04 1477    1    1
    1
'SB Bladensburg R App                 ' 'AG' 328044.56 4307648.76 328003.54 4307571.57 105.00 10.908  0.00  9.20
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    2
'SB Bladensburg R App Queue              ' 'AG' 328009.94 4307583.49 328032.82 4307626.54  0.00  3.20    1
       100   62    2.00  105 69.04 1406    1    1
 1.00   0.00 4 1000.00  0.00 'Y'   5   0  72
```

H Street and Bladensburg Road – 2040 AM Peak, Output

JOB: DC Streetcar RUN: H and Bladensburg AM Build

DATE : 9/ 7/12
TIME : 2:53:42

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 200. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	LENGTH (M)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)
1. NB Maryland App	327707.91	4307411.50	327984.25	4307548.50	308.	64.	AG	405.	10.9	0.0	12.4		
2. NB Maryland Thru Queue	327968.69	4307541.00	327888.03	4307501.00	90.	244.	AG	300.	100.0	0.0	6.4	1.05	15.0
3. NB 15th App	327983.69	4307252.00	327984.25	4307548.50	297.	0.	AG	425.	10.9	0.0	12.4		
4. NB 15th Thru Queue	327984.12	4307534.00	327983.84	4307416.00	118.	180.	AG	307.	100.0	0.0	6.4	1.09	19.6
5. WB Benning App	328323.19	4307502.00	328018.53	4307568.50	312.	282.	AG	2275.	10.9	0.0	15.6		
6. WB Benning Thru Queue	328037.47	4307564.50	328110.28	4307548.50	75.	102.	AG	289.	100.0	0.0	9.6	0.89	12.4
7. SB Bladensburg App	328146.84	4307830.50	328008.84	4307570.50	294.	208.	AG	670.	10.9	0.0	12.4		
8. SB Bladensburg Thru Queue	328015.47	4307583.00	328035.94	4307621.50	43.	28.	AG	230.	100.0	0.0	6.4	0.73	7.2
9. EB H Street App 1	327691.00	4307566.50	327932.78	4307566.00	242.	90.	AG	830.	10.9	0.0	12.4		
10. EB H Street App 2	327932.78	4307566.00	327987.00	4307558.00	55.	98.	AG	830.	10.9	0.0	15.6		
11. EB H Street Queue	327971.97	4307560.00	327958.06	4307562.00	14.	279.	AG	222.	100.0	0.0	9.6	0.25	2.3
12. SB Maryland Dep	327987.00	4307558.00	327705.41	4307418.50	314.	244.	AG	375.	10.9	0.0	12.4		
13. EB H Street Intersection	327987.00	4307558.00	328002.19	4307554.00	16.	105.	AG	595.	10.9	0.0	15.6		
14. EB Benning Dep	328002.19	4307554.00	328321.41	4307485.50	326.	102.	AG	735.	10.9	0.0	15.6		
15. NB Maryland Intersection 1	327984.19	4307548.50	328002.06	4307554.00	19.	73.	AG	830.	10.9	1.0	12.4		
16. NB Maryland Intersection 2	328002.09	4307554.00	328018.53	4307568.50	22.	49.	AG	525.	10.9	0.0	12.4		
17. NB Blandensburg Dep	328018.53	4307568.50	328155.28	4307825.50	291.	28.	AG	830.	10.9	0.0	15.6		
18. WB Florida Dep 1	328018.53	4307568.50	327975.25	4307576.50	44.	280.	AG	1188.	10.9	0.0	12.4		
19. WB Florida Dep 2	327975.25	4307576.50	327923.28	4307578.00	52.	272.	AG	1188.	10.9	0.0	12.4		
20. WB Florida Dep 3	327923.28	4307578.00	327705.19	4307692.00	246.	298.	AG	1188.	10.9	0.0	12.4		
21. WB H Street Dep 1	328018.53	4307568.50	327949.38	4307572.00	69.	273.	AG	1583.	10.9	0.0	12.4		
22. WB H Street Dep 2	327949.38	4307572.00	327690.38	4307572.50	259.	270.	AG	1583.	10.9	0.0	12.4		
23. SB Blandensburg Intersection	328008.81	4307570.50	327987.00	4307558.00	25.	240.	AG	335.	10.9	0.0	12.4		
24. EB H Street L Queue	327980.72	4307564.50	327822.81	4307575.50	158.	274.	AG	159.	100.0	0.0	3.2	1.19	26.4
25. WB Benning L Queue	328033.16	4307559.00	328093.81	4307546.00	62.	102.	AG	96.	100.0	0.0	3.2	0.83	10.3
26. SB Bladensburg R App	328044.56	4307649.00	328003.53	4307571.50	88.	208.	AG	105.	10.9	0.0	9.2		
27. SB Bladensburg R App Queue	328009.94	4307583.50	328015.66	4307594.00	12.	28.	AG	115.	100.0	0.0	3.2	0.22	2.0

JOB: DC Streetcar RUN: H and Bladensburg AM Build

DATE : 9/ 7/12
TIME : 2:53:42

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. NB Maryland Thru Queue	100	81	3.0	405	1380	69.04	1	1
4. NB 15th Thru Queue	100	83	2.0	425	1504	69.04	1	1
6. WB Benning Thru Queue	100	52	2.0	1734	1477	69.04	1	1
8. SB Bladensburg Thru Queue	100	62	0.0	670	1284	69.04	1	1
11. EB H Street Queue	100	40	2.0	635	1538	69.04	1	1
24. EB H Street L Queue	100	86	2.0	195	1646	69.04	1	1
25. WB Benning L Queue	100	52	2.0	541	1477	69.04	1	1
27. SB Bladensburg R App Queue	100	62	2.0	105	1406	69.04	1	1

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. 1	327976.94	4307537.00	1.8
2. 2	327954.59	4307525.50	1.8
3. 3	327931.94	4307514.50	1.8
4. 4	327840.94	4307469.00	1.8
5. 5	327975.75	4307511.50	1.8
6. 6	327976.16	4307487.50	1.8
7. 7	327974.97	4307384.00	1.8
8. 8	327991.66	4307543.00	1.8
9. 9	327991.56	4307518.00	1.8
10. 10	327991.25	4307493.00	1.8
11. 11	327991.19	4307389.00	1.8
12. 12	327999.28	4307545.50	1.8
13. 13	328023.66	4307540.50	1.8
14. 14	328048.06	4307535.00	1.8
15. 15	328147.50	4307514.00	1.8
16. 16	328032.19	4307575.00	1.8
17. 17	328056.41	4307569.50	1.8
18. 18	328080.94	4307564.00	1.8
19. 19	328180.66	4307542.50	1.8
20. 20	328043.81	4307597.50	1.8
21. 21	328055.53	4307619.50	1.8
22. 22	328104.00	4307710.00	1.8
23. 23	328000.81	4307579.50	1.8
24. 24	328012.69	4307601.50	1.8
25. 25	328024.53	4307623.50	1.8
26. 26	328073.78	4307713.50	1.8
27. 27	327975.84	4307584.00	1.8
28. 28	327950.69	4307584.50	1.8
29. 29	327857.59	4307621.00	1.8
30. 30	327904.47	4307579.50	1.8
31. 31	327882.12	4307591.00	1.8
32. 32	327859.69	4307603.00	1.8
33. 33	327768.47	4307647.00	1.8
34. 34	327878.72	4307579.50	1.8

35. 35	*	327853.12	4307579.50	1.8	*
36. 36	*	327752.12	4307580.00	1.8	*
37. 37	*	327959.44	4307553.00	1.8	*

DATE : 9/ 7/12
TIME : 2:53:42

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
38. 38	327934.12	4307556.50	1.8
39. 39	327909.00	4307558.50	1.8
40. 40	327807.28	4307559.00	1.8
41. 41	327936.62	4307541.50	1.8
42. 42	327913.94	4307530.00	1.8
43. 43	327822.84	4307485.00	1.8

JOB: DC Streetcar RUN: H and Bladensburg AM Build

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	* 1.0	1.6	1.3	0.6	1.0	0.7	0.6	1.0	0.6	0.7	0.7	1.1	1.1	1.4	0.6	0.9	0.3	0.2	0.0	0.7
5.	* 0.8	1.5	1.4	0.6	0.6	0.8	0.7	1.0	0.5	0.5	0.5	1.3	1.0	1.3	0.6	0.8	0.3	0.2	0.0	0.6
10.	* 0.8	1.6	1.5	0.6	0.7	1.0	0.7	1.3	0.6	0.7	0.5	1.4	1.1	1.3	0.7	0.9	0.3	0.2	0.0	0.7
15.	* 0.8	1.7	1.7	0.7	1.0	1.3	0.8	1.4	0.6	0.7	0.6	1.5	1.2	1.3	0.7	0.8	0.2	0.1	0.0	0.7
20.	* 1.1	1.8	1.7	0.7	1.3	1.5	0.8	1.3	0.8	0.6	0.3	1.6	1.1	1.2	0.6	0.8	0.2	0.0	0.0	0.7
25.	* 1.2	1.9	1.7	0.7	1.4	1.6	0.6	1.6	0.8	0.6	0.2	1.5	1.0	1.2	0.6	0.5	0.1	0.0	0.0	0.5
30.	* 1.1	1.9	1.7	0.6	1.6	1.6	0.5	1.8	0.8	0.5	0.2	1.5	1.1	1.1	0.6	0.4	0.1	0.0	0.0	0.4
35.	* 1.1	1.9	1.9	0.6	1.6	1.7	0.5	1.4	0.8	0.5	0.2	1.4	1.0	1.1	0.6	0.3	0.0	0.0	0.0	0.4
40.	* 1.2	1.6	2.0	0.6	1.7	1.5	0.3	1.3	0.7	0.4	0.1	1.3	1.0	1.1	0.6	0.2	0.0	0.0	0.0	0.2
45.	* 1.2	1.6	2.0	0.7	1.5	1.4	0.3	1.4	0.5	0.5	0.1	1.2	1.1	1.2	0.7	0.1	0.0	0.0	0.0	0.1
50.	* 1.2	1.4	1.8	0.5	1.4	1.4	0.2	1.2	0.5	0.5	0.1	1.2	1.2	1.2	0.7	0.1	0.0	0.0	0.0	0.1
55.	* 1.4	1.1	1.3	0.7	1.2	1.4	0.2	1.3	0.6	0.5	0.1	1.0	1.2	1.2	0.7	0.0	0.0	0.0	0.0	0.0
60.	* 1.1	1.2	1.1	0.7	1.3	1.3	0.2	1.1	0.7	0.4	0.1	1.2	1.3	1.2	0.8	0.0	0.0	0.1	0.0	0.0
65.	* 0.9	0.9	1.1	0.8	1.3	1.3	0.2	1.0	0.7	0.4	0.1	1.1	1.3	1.3	0.8	0.0	0.1	0.1	0.1	0.0
70.	* 0.8	0.8	0.8	0.6	1.4	1.2	0.2	1.0	0.6	0.4	0.1	1.2	1.3	1.2	0.8	0.1	0.1	0.1	0.1	0.0
75.	* 1.0	0.9	0.8	0.4	1.3	1.2	0.1	1.1	0.6	0.3	0.0	1.2	1.4	1.2	0.9	0.1	0.1	0.1	0.1	0.0
80.	* 1.0	0.8	0.7	0.3	1.2	1.1	0.1	1.2	0.5	0.3	0.0	1.3	1.3	1.2	0.9	0.1	0.2	0.2	0.1	0.0
85.	* 0.9	0.9	0.6	0.2	1.2	1.0	0.1	1.2	0.5	0.3	0.0	1.3	1.3	1.1	0.9	0.3	0.4	0.3	0.2	0.0
90.	* 0.8	0.8	0.5	0.2	1.1	0.9	0.1	1.0	0.3	0.2	0.0	1.2	1.2	1.0	0.8	0.6	0.5	0.5	0.4	0.0
95.	* 0.8	0.7	0.4	0.1	1.0	0.9	0.1	0.8	0.3	0.1	0.0	1.1	0.9	0.9	0.7	0.9	0.8	0.7	0.5	0.1
100.	* 0.6	0.6	0.3	0.1	0.9	0.8	0.1	0.6	0.2	0.0	0.0	0.8	0.8	0.7	0.5	1.5	1.4	1.2	0.8	0.1
105.	* 0.6	0.5	0.2	0.1	0.8	0.9	0.1	0.4	0.1	0.0	0.0	0.6	0.5	0.5	0.4	1.8	1.7	1.5	1.1	0.2
110.	* 0.7	0.4	0.2	0.1	0.8	0.8	0.1	0.2	0.0	0.0	0.0	0.3	0.3	0.3	0.3	2.2	2.0	1.7	1.2	0.5
115.	* 0.5	0.4	0.2	0.0	0.8	0.9	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.1	0.1	2.5	2.3	2.0	1.3	0.6
120.	* 0.6	0.5	0.2	0.0	0.8	0.9	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	2.4	2.4	2.1	1.3	0.6
125.	* 0.8	0.5	0.2	0.0	0.9	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	2.3	2.3	2.1	1.2	0.7
130.	* 0.9	0.5	0.2	0.0	1.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.4	2.1	1.2	0.8
135.	* 1.0	0.5	0.2	0.0	1.0	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.3	2.1	1.2	0.8
140.	* 1.0	0.5	0.2	0.0	1.1	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.0	2.0	1.0	0.9
145.	* 1.1	0.5	0.3	0.0	1.1	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.0	2.0	1.0	1.0
150.	* 1.2	0.5	0.3	0.0	1.1	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.9	2.0	0.9	1.0
155.	* 1.3	0.5	0.2	0.0	1.1	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.8	1.8	0.9	0.9
160.	* 1.3	0.4	0.1	0.0	1.1	1.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.3	1.8	1.8	0.9	0.8
165.	* 1.4	0.3	0.0	0.0	1.1	1.1	0.2	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	1.1	1.7	1.7	0.8	0.8
170.	* 1.4	0.3	0.0	0.0	1.0	1.0	0.2	0.4	0.4	0.3	0.1	0.1	0.0	0.0	0.0	1.1	1.7	1.7	0.8	0.8
175.	* 1.1	0.2	0.0	0.0	0.9	0.8	0.2	0.7	0.6	0.6	0.1	0.3	0.0	0.0	0.0	1.0	1.7	1.7	0.8	0.8
180.	* 0.9	0.1	0.0	0.0	0.7	0.7	0.1	0.9	0.8	0.7	0.2	0.4	0.0	0.0	0.0	1.0	1.7	1.7	0.8	0.8
185.	* 0.7	0.0	0.0	0.0	0.5	0.4	0.1	1.1	1.0	0.9	0.2	0.5	0.1	0.0	0.0	0.9	1.7	1.8	0.8	0.7
190.	* 0.5	0.0	0.0	0.0	0.3	0.3	0.1	1.1	1.2	1.1	0.2	0.6	0.1	0.0	0.0	1.0	1.8	1.8	0.9	0.8
195.	* 0.3	0.0	0.0	0.0	0.1	0.2	0.0	1.2	1.2	1.2	0.2	0.7	0.3	0.0	0.0	1.1	1.8	1.8	0.9	0.7
200.	* 0.1	0.0	0.0	0.0	0.1	0.0	0.0	1.1	1.2	1.2	0.2	0.7	0.3	0.1	0.0	1.1	1.8	1.7	0.8	0.8
205.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.2	1.2	0.2	0.7	0.4	0.1	0.0	1.2	1.8	1.7	0.8	0.9

JOB: DC Streetcar RUN: H and Bladensburg AM Build

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.2	1.2	0.2	0.7	0.4	0.1	0.0	1.3	1.9	1.8	0.8	0.9
215.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.2	1.1	0.2	0.6	0.4	0.2	0.0	1.2	1.9	1.8	0.8	1.0
220.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1	1.1	0.2	0.6	0.4	0.2	0.0	1.3	1.9	1.8	0.8	1.0
225.	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.6	1.1	1.1	0.2	0.6	0.4	0.2	0.0	1.5	2.0	1.9	0.9	1.0
230.	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.8	1.1	1.1	0.2	0.5	0.4	0.2	0.0	1.4	2.0	2.0	0.9	1.1
235.	0.4	0.4	0.3	0.1	0.0	0.0	0.0	0.8	1.0	1.0	0.2	0.6	0.4	0.2	0.0	1.9	2.0	2.2	0.9	1.3
240.	0.8	0.7	0.6	0.1	0.0	0.0	0.0	0.9	0.9	0.9	0.1	0.8	0.5	0.2	0.1	2.1	2.1	2.2	1.1	1.5
245.	1.0	0.9	0.7	0.3	0.0	0.0	0.0	1.0	1.0	0.9	0.1	0.9	0.5	0.3	0.1	2.0	2.3	2.2	1.1	1.5
250.	1.2	1.0	0.9	0.3	0.2	0.0	0.0	1.0	1.1	0.9	0.1	1.1	0.6	0.3	0.1	2.2	2.4	2.3	1.3	1.6
255.	1.3	1.1	1.0	0.3	0.2	0.0	0.0	1.0	1.2	0.9	0.1	1.0	0.7	0.4	0.1	2.3	2.3	2.4	1.3	1.6
260.	1.3	1.2	1.1	0.3	0.4	0.0	0.0	0.9	1.3	0.9	0.1	1.0	0.6	0.5	0.2	2.4	2.3	2.5	1.6	1.5
265.	1.4	1.3	1.2	0.3	0.5	0.0	0.0	1.2	1.4	1.0	0.1	1.1	0.7	0.6	0.3	2.2	2.2	2.6	1.6	1.4
270.	1.4	1.4	1.2	0.3	0.5	0.1	0.0	1.2	1.4	1.1	0.1	1.2	0.9	0.7	0.3	2.2	2.2	2.5	1.7	1.2
275.	1.5	1.5	1.3	0.3	0.6	0.1	0.0	1.2	1.7	1.0	0.1	1.3	1.1	0.6	0.6	2.0	1.8	2.0	1.5	0.9
280.	1.4	1.4	1.4	0.3	0.8	0.1	0.0	1.4	1.7	1.2	0.1	1.5	1.2	1.0	0.7	1.6	1.7	1.7	1.4	0.9
285.	1.4	1.6	1.4	0.3	0.8	0.3	0.0	1.4	1.9	1.3	0.1	1.8	1.4	1.1	0.9	1.3	1.3	1.5	1.0	0.8
290.	1.5	1.6	1.4	0.3	1.0	0.4	0.0	1.7	1.9	1.3	0.1	1.5	1.4	1.0	1.2	1.0	0.9	1.1	0.6	0.8
295.	1.5	1.6	1.4	0.3	1.1	0.4	0.0	1.6	1.9	1.4	0.1	1.7	1.3	1.1	1.3	1.1	0.7	0.7	0.5	0.7
300.	1.4	1.5	1.4	0.2	1.0	0.5	0.0	1.6	1.9	1.5	0.1	1.5	1.3	1.1	1.1	0.7	0.5	0.5	0.2	0.7
305.	1.5	1.5	1.5	0.3	1.0	0.6	0.0	1.6	1.9	1.6	0.3	1.5	1.4	0.8	1.2	0.7	0.5	0.4	0.1	0.7
310.	1.4	1.6	1.5	0.3	0.9	0.6	0.1	1.6	1.8	1.6	0.3	1.7	0.9	0.8	1.0	0.8	0.5	0.4	0.1	0.7
315.	1.3	1.6	1.5	0.4	0.9	0.6	0.1	1.4	2.0	1.7	0.4	1.2	0.9	0.7	1.0	0.8	0.5	0.4	0.1	0.7
320.	1.3	1.6	1.5	0.4	0.9	0.6	0.1	1.2	1.8	1.6	0.4	1.2	0.9	1.1	0.9	0.8	0.5	0.4	0.0	0.7
325.	1.2	1.6	1.5	0.4	0.9	0.5	0.3	1.2	1.7	1.8	0.6	1.3	0.8	1.2	0.9	0.7	0.4	0.4	0.0	0.7
330.	1.2	1.7	1.5	0.4	1.0	0.5	0.3	1.3	1.5	1.7	0.7	1.2	0.9	1.2	0.8	0.8	0.4	0.2	0.0	0.7
335.	1.0	1.6	1.5	0.5	1.0	0.5	0.3	1.2	1.2	1.7	0.7	1.1	1.0	1.3	0.7	0.8	0.3	0.2	0.0	0.6
340.	1.0	1.4	1.5	0.5	0.9	0.7	0.3	1.1	1.2	1.5	0.8	1.1	1.0	1.2	0.7	0.9	0.3	0.2	0.0	0.7
345.	1.0	1.4	1.4	0.5	0.8	0.8	0.2	0.9	1.2	1.4	0.8	1.1	1.0	1.3	0.6	0.9	0.3	0.2	0.0	0.7
350.	0.9	1.5	1.4	0.5	0.7	0.7	0.4	1.1	0.8	1.0	0.9	1.1	0.9	1.3	0.6	0.8	0.2	0.2	0.0	0.6
355.	1.0	1.6	1.5	0.5	0.9	0.8	0.5	1.1	0.7	0.9	0.8	1.0	1.1	1.3	0.6	0.9	0.2	0.2	0.0	0.7
360.	1.0	1.6	1.3	0.6	1.0	0.7	0.6	1.0	0.6	0.7	0.7	1.1	1.1	1.4	0.6	0.9	0.3	0.2	0.0	0.7
MAX	1.5	1.9	2.0	0.8	1.7	1.7	0.8	1.8	2.0	1.8	0.9	1.8	1.4	1.4	1.3	2.5	2.4	2.6	1.7	1.6
DEGR.	275	25	40	65	40	35	15	30	315	325	350	285	75	0	295	115	250	265	270	250

JOB: DC Streetcar RUN: H and Bladensburg AM Build

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
0.	* 0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.2	0.2	0.1	1.4	1.1	1.1	0.8
5.	* 0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.3	0.2	0.2	0.1	1.5	1.1	1.2	0.8
10.	* 0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.3	0.2	0.2	0.1	1.5	1.0	1.1	0.8
15.	* 0.7	0.5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.4	0.4	0.3	0.2	0.2	0.1	1.5	1.0	1.1	0.8
20.	* 0.6	0.5	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.4	0.4	0.4	0.3	0.2	0.2	0.1	1.5	0.9	1.1	0.8
25.	* 0.5	0.5	0.5	0.3	0.3	0.2	0.0	0.0	0.0	0.4	0.4	0.4	0.3	0.2	0.2	0.1	1.7	1.0	1.3	0.8
30.	* 0.4	0.4	0.6	0.4	0.3	0.3	0.1	0.0	0.0	0.4	0.4	0.4	0.3	0.2	0.2	0.1	1.8	1.2	1.2	0.8
35.	* 0.3	0.2	0.8	0.5	0.4	0.3	0.2	0.0	0.0	0.4	0.4	0.4	0.3	0.2	0.2	0.1	1.8	1.2	1.2	0.9
40.	* 0.2	0.1	1.1	0.8	0.5	0.5	0.2	0.2	0.0	0.4	0.4	0.4	0.3	0.2	0.2	0.1	1.9	1.4	1.2	0.9
45.	* 0.1	0.1	1.1	0.9	0.5	0.5	0.2	0.2	0.0	0.4	0.4	0.4	0.3	0.2	0.2	0.1	1.9	1.4	1.3	1.0
50.	* 0.1	0.1	1.3	0.9	0.5	0.5	0.3	0.2	0.0	0.4	0.4	0.4	0.3	0.2	0.2	0.1	1.9	1.4	1.4	1.1
55.	* 0.0	0.0	1.3	1.0	0.5	0.5	0.3	0.2	0.0	0.5	0.4	0.4	0.4	0.2	0.2	0.1	1.9	1.6	1.5	1.2
60.	* 0.0	0.0	1.0	0.8	0.4	0.5	0.4	0.3	0.0	0.6	0.4	0.4	0.4	0.4	0.3	0.1	1.8	1.7	1.6	1.2
65.	* 0.0	0.0	0.9	0.9	0.4	0.5	0.4	0.3	0.0	0.8	0.5	0.4	0.4	0.4	0.3	0.2	1.8	1.6	1.7	1.2
70.	* 0.0	0.0	0.8	0.9	0.4	0.4	0.4	0.3	0.0	0.7	0.6	0.5	0.4	0.4	0.3	0.2	1.9	1.7	1.8	1.2
75.	* 0.0	0.0	0.9	0.9	0.4	0.4	0.4	0.4	0.0	1.0	0.6	0.5	0.4	0.5	0.5	0.3	1.7	1.7	1.9	1.3
80.	* 0.0	0.0	0.8	0.9	0.5	0.4	0.6	0.6	0.0	1.2	0.5	0.5	0.4	0.9	0.8	0.6	1.7	1.4	1.6	1.2
85.	* 0.0	0.0	1.1	0.9	0.5	0.4	0.7	0.9	0.0	1.6	0.8	0.6	0.4	1.0	1.1	0.9	1.5	1.4	1.6	1.2
90.	* 0.0	0.0	1.2	0.9	0.5	0.4	0.9	1.0	0.1	1.9	1.0	0.7	0.5	1.6	1.5	1.2	1.5	1.4	1.5	1.1
95.	* 0.0	0.0	1.5	1.0	0.6	0.4	1.3	1.4	0.2	2.2	1.3	1.0	0.6	1.8	1.9	1.2	1.2	1.1	1.0	0.8
100.	* 0.0	0.0	1.8	1.1	0.7	0.4	1.6	1.5	0.3	2.3	1.5	1.4	0.6	1.9	2.2	1.4	1.0	1.0	1.1	0.7
105.	* 0.1	0.0	2.1	1.3	0.8	0.4	1.6	1.7	0.7	2.5	1.5	1.4	0.6	2.3	2.0	1.6	0.8	0.9	0.5	0.5
110.	* 0.1	0.0	2.2	1.4	0.9	0.4	1.9	1.5	1.0	2.1	1.6	1.3	0.7	2.1	1.8	1.5	0.8	0.7	0.6	0.3
115.	* 0.2	0.0	2.3	1.6	1.0	0.4	1.7	1.7	0.9	2.1	1.6	1.4	0.6	1.8	1.8	1.3	0.6	0.6	0.4	0.2
120.	* 0.3	0.0	2.3	1.7	1.3	0.4	1.5	1.6	0.9	1.8	1.4	1.1	0.7	1.5	1.7	1.2	0.4	0.6	0.5	0.2
125.	* 0.4	0.0	2.1	1.7	1.3	0.4	1.3	1.6	1.0	1.6	1.1	1.0	0.7	1.6	1.8	1.0	0.6	0.7	0.5	0.2
130.	* 0.4	0.1	1.9	1.8	1.4	0.5	1.1	1.6	1.2	1.7	1.0	1.0	0.6	1.6	1.6	0.9	0.6	0.7	0.6	0.2
135.	* 0.5	0.1	1.7	1.8	1.5	0.5	1.1	1.5	1.2	1.5	1.1	0.9	0.6	1.5	1.5	0.8	0.8	0.8	0.5	0.0
140.	* 0.5	0.1	1.5	1.9	1.5	0.5	1.2	1.7	1.2	1.5	1.0	0.9	0.4	1.4	1.4	0.8	0.8	0.9	0.5	0.0
145.	* 0.6	0.1	1.4	1.8	1.5	0.5	1.1	1.6	1.2	1.5	0.9	0.6	0.2	1.4	1.4	0.8	1.0	0.9	0.6	0.0
150.	* 0.6	0.1	1.4	1.5	1.5	0.5	1.2	1.8	1.1	1.4	0.9	0.6	0.2	1.4	1.3	0.7	1.0	0.8	0.5	0.0
155.	* 0.5	0.1	1.2	1.4	1.5	0.5	1.1	1.9	1.0	1.3	0.9	0.5	0.2	1.2	1.2	0.7	1.1	0.8	0.5	0.0
160.	* 0.5	0.1	1.2	1.5	1.4	0.5	1.3	1.9	1.0	1.3	0.8	0.5	0.2	1.2	1.2	0.7	1.1	0.8	0.5	0.0
165.	* 0.5	0.1	1.1	1.3	1.3	0.6	1.5	1.9	1.0	1.2	0.7	0.5	0.2	1.1	1.0	0.7	1.2	0.6	0.4	0.0
170.	* 0.5	0.1	1.3	1.3	1.3	0.7	1.4	1.8	0.8	1.2	0.7	0.4	0.2	1.1	1.0	0.7	1.1	0.6	0.3	0.0
175.	* 0.5	0.1	1.7	1.2	1.3	0.7	1.6	1.7	0.8	1.2	0.7	0.4	0.2	1.1	1.0	0.7	1.0	0.5	0.4	0.0
180.	* 0.5	0.2	1.8	1.3	1.5	0.7	1.7	1.6	0.8	1.3	0.7	0.4	0.2	1.2	1.1	0.7	0.8	0.5	0.4	0.0
185.	* 0.5	0.3	1.6	1.3	1.4	0.7	1.9	1.5	0.8	1.2	0.6	0.4	0.2	1.0	1.0	0.7	0.8	0.5	0.3	0.0
190.	* 0.7	0.3	1.7	1.0	1.3	0.8	2.1	1.5	0.8	1.1	0.6	0.4	0.2	1.0	1.0	0.7	0.7	0.5	0.4	0.0
195.	* 0.6	0.3	1.6	0.9	1.3	0.8	1.9	1.6	0.8	1.1	0.6	0.4	0.2	1.0	1.0	0.7	0.8	0.6	0.4	0.0
200.	* 0.7	0.5	1.6	0.9	0.7	0.8	2.0	1.6	0.8	1.1	0.6	0.4	0.2	1.0	1.0	0.7	0.8	0.6	0.3	0.0
205.	* 0.7	0.7	1.7	0.8	0.7	0.5	1.9	1.7	0.8	1.0	0.6	0.4	0.2	1.0	1.1	0.7	0.9	0.5	0.3	0.0

JOB: DC Streetcar RUN: H and Bladensburg AM Build

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
210.	0.8	0.7	1.7	0.7	0.7	0.7	1.8	1.5	0.8	1.0	0.6	0.4	0.2	1.1	1.2	0.7	0.9	0.5	0.3	0.0
215.	0.9	0.7	1.7	0.8	0.6	0.4	1.9	1.6	0.8	1.1	0.6	0.4	0.2	1.1	1.2	0.8	0.9	0.5	0.2	0.0
220.	1.1	0.8	1.4	1.0	0.5	0.2	1.9	1.5	0.7	1.1	0.6	0.4	0.1	1.1	1.2	0.8	0.9	0.4	0.2	0.0
225.	1.2	0.7	1.7	1.0	0.6	0.1	1.8	1.7	0.7	1.1	0.8	0.5	0.1	1.1	1.2	0.8	0.9	0.4	0.2	0.0
230.	1.1	0.7	1.7	1.1	0.7	0.1	1.8	1.4	0.7	1.2	0.8	0.5	0.1	1.2	1.3	0.9	0.8	0.3	0.1	0.0
235.	1.2	0.7	1.9	1.1	0.5	0.1	1.7	1.4	0.7	1.3	0.8	0.5	0.0	1.4	1.4	0.9	0.7	0.3	0.0	0.0
240.	1.4	0.7	2.1	0.9	0.6	0.1	1.5	1.4	0.7	1.4	0.8	0.5	0.0	1.5	1.5	0.9	0.6	0.1	0.0	0.0
245.	1.5	0.6	2.2	0.8	0.4	0.1	1.5	1.6	0.7	1.4	0.8	0.4	0.0	1.5	1.5	0.9	0.5	0.0	0.0	0.0
250.	1.4	0.6	2.0	0.6	0.6	0.2	1.4	1.6	0.7	1.5	0.8	0.4	0.0	1.6	1.5	0.9	0.2	0.0	0.1	0.1
255.	1.3	0.5	1.8	0.7	0.5	0.0	1.7	1.5	0.6	1.5	0.7	0.3	0.0	1.6	1.6	0.9	0.2	0.2	0.2	0.1
260.	1.1	0.4	1.9	0.6	0.4	0.0	1.5	1.5	0.6	1.5	0.5	0.3	0.0	1.5	1.4	0.8	0.2	0.2	0.3	0.3
265.	0.9	0.4	1.8	0.6	0.2	0.0	1.3	1.4	0.5	1.3	0.5	0.1	0.0	1.3	1.3	0.7	0.5	0.5	0.6	0.5
270.	0.8	0.4	1.6	0.4	0.2	0.0	1.1	1.1	0.6	1.2	0.3	0.2	0.0	1.1	1.1	0.6	0.6	0.7	0.8	0.6
275.	0.7	0.4	1.2	0.2	0.1	0.0	1.0	1.0	0.6	0.9	0.2	0.1	0.0	0.8	0.7	0.4	0.8	0.9	1.0	0.7
280.	0.6	0.4	1.0	0.1	0.1	0.0	0.7	0.7	0.6	0.7	0.2	0.1	0.0	0.6	0.6	0.2	1.1	1.0	1.2	0.8
285.	0.5	0.4	0.6	0.1	0.0	0.0	0.4	0.5	0.6	0.5	0.2	0.2	0.1	0.3	0.2	0.2	1.2	1.3	1.3	1.0
290.	0.5	0.4	0.3	0.1	0.0	0.0	0.3	0.4	0.6	0.4	0.3	0.3	0.1	0.2	0.1	0.1	1.3	1.3	1.4	0.9
295.	0.4	0.4	0.2	0.0	0.0	0.0	0.2	0.2	0.5	0.6	0.5	0.5	0.2	0.2	0.1	0.1	1.4	1.4	1.3	0.9
300.	0.4	0.4	0.1	0.0	0.0	0.0	0.1	0.2	0.4	0.7	0.6	0.6	0.2	0.3	0.2	0.0	1.5	1.4	1.4	0.9
305.	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.7	0.6	0.6	0.3	0.2	0.1	0.0	1.4	1.3	1.4	0.9
310.	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	0.7	0.7	0.4	0.3	0.2	0.0	1.3	1.3	1.3	0.9
315.	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.7	0.7	0.4	0.3	0.2	0.0	1.3	1.3	1.4	0.8
320.	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.6	0.6	0.4	0.3	0.2	0.0	1.4	1.5	1.3	0.8
325.	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.4	0.3	0.2	0.0	1.2	1.3	1.3	0.8
330.	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.6	0.4	0.3	0.2	0.0	1.2	1.3	1.2	0.8
335.	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.4	0.3	0.2	0.0	1.1	1.3	1.2	0.8
340.	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.4	0.3	0.2	0.1	1.2	1.3	1.2	0.8
345.	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.4	0.3	0.2	0.1	1.3	1.2	1.1	0.8
350.	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.2	0.2	0.1	1.3	1.1	1.1	0.8
355.	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.2	0.2	0.1	1.3	1.1	1.1	0.8
360.	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.2	0.2	0.1	1.4	1.1	1.1	0.8
MAX	1.5	0.8	2.3	1.9	1.5	0.8	2.1	1.9	1.2	2.5	1.6	1.4	0.7	2.3	2.2	1.6	1.9	1.7	1.9	1.3
DEGR.	245	220	115	140	135	190	190	155	130	105	110	100	110	105	100	105	40	60	75	75

JOB: DC Streetcar RUN: H and Bladensburg AM Build

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC41	REC42	REC43
0.	0.6	0.5	0.3
5.	0.7	0.5	0.3
10.	0.7	0.6	0.4
15.	0.8	0.5	0.4
20.	0.8	0.5	0.4
25.	0.7	0.5	0.4
30.	0.8	0.6	0.4
35.	1.1	0.5	0.4
40.	1.0	0.7	0.3
45.	1.1	0.7	0.3
50.	1.1	0.8	0.4
55.	1.2	1.1	0.4
60.	1.1	1.1	0.4
65.	1.1	1.0	0.6
70.	1.1	1.1	0.6
75.	1.1	1.1	0.7
80.	1.1	1.3	0.7
85.	1.1	1.3	0.6
90.	1.2	1.3	0.6
95.	1.2	1.3	0.4
100.	1.2	1.3	0.4
105.	1.2	1.2	0.4
110.	1.0	1.0	0.3
115.	0.9	1.0	0.3
120.	0.9	0.9	0.2
125.	1.0	0.9	0.2
130.	1.0	0.9	0.2
135.	1.1	0.9	0.2
140.	1.1	0.9	0.2
145.	1.1	0.8	0.2
150.	1.0	0.8	0.2
155.	1.0	0.8	0.2
160.	1.0	0.7	0.2
165.	0.8	0.7	0.2
170.	0.8	0.7	0.2
175.	0.7	0.7	0.2
180.	0.7	0.7	0.2
185.	0.7	0.7	0.2
190.	0.7	0.7	0.2
195.	0.8	0.8	0.2
200.	0.9	0.9	0.3
205.	0.9	0.8	0.3

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC41	REC42	REC43
210.	0.9	0.8	0.3
215.	0.9	0.8	0.3
220.	0.8	0.7	0.3
225.	0.8	0.6	0.3
230.	0.7	0.5	0.3
235.	0.6	0.4	0.3
240.	0.5	0.4	0.3
245.	0.4	0.3	0.2
250.	0.2	0.1	0.1
255.	0.1	0.1	0.1
260.	0.0	0.1	0.0
265.	0.2	0.0	0.0
270.	0.2	0.1	0.0
275.	0.3	0.2	0.0
280.	0.5	0.2	0.0
285.	0.6	0.3	0.0
290.	0.7	0.4	0.0
295.	0.8	0.4	0.0
300.	0.8	0.5	0.1
305.	0.9	0.5	0.1
310.	0.9	0.5	0.2
315.	0.9	0.5	0.2
320.	0.8	0.6	0.2
325.	0.7	0.6	0.2
330.	0.7	0.6	0.2
335.	0.7	0.6	0.3
340.	0.7	0.5	0.3
345.	0.8	0.5	0.3
350.	0.8	0.5	0.3
355.	0.7	0.5	0.3
360.	0.6	0.5	0.3
MAX	1.2	1.3	0.7
DEGR.	55	80	75

THE HIGHEST CONCENTRATION OF 2.60 PPM OCCURRED AT RECEPTOR REC18.

Benning Road and 26th Street-Oklahoma Avenue – 2040 AM Peak, Input

```
'DC Streetcar' 60.00 200.000 0.00 0.00 34 1.0000 0 0
'1                                  ' 329188.29 4307253.61    1.80
'2                                  ' 329173.59 4307232.90    1.80
'3                                  ' 329158.57 4307212.17    1.80
'4                                  ' 329098.57 4307129.45    1.80
'5                                  ' 329208.06 4307250.90    1.80
'6                                  ' 329193.27 4307230.59    1.80
'7                                  ' 329178.62 4307210.50    1.80
'8                                  ' 329119.26 4307128.07    1.80
'9                                  ' 329232.97 4307248.26    1.80
'10                                 ' 329258.12 4307245.65    1.80
'11                                 ' 329358.00 4307234.85    1.80
'12                                 ' 329219.13 4307282.92    1.80
'13                                 ' 329244.02 4307280.40    1.80
'14                                 ' 329269.05 4307277.89    1.80
'15                                 ' 329370.09 4307267.75    1.80
'16                                 ' 329136.93 4307298.33    1.80
'17                                 ' 329161.56 4307293.30    1.80
'18                                 ' 329186.49 4307288.28    1.80
'19                                 ' 329142.35 4307322.91    1.80
'20                                 ' 329147.28 4307347.46    1.80
'21                                 ' 329148.44 4307450.23    1.80
'22                                 ' 329120.44 4307301.77    1.80
'23                                 ' 329126.23 4307326.19    1.80
'24                                 ' 329130.71 4307350.94    1.80
'25                                 ' 329131.65 4307453.33    1.80
'26                                 ' 329095.85 4307307.21    1.80
'27                                 ' 329071.51 4307312.43    1.80
'28                                 ' 328971.60 4307333.59    1.80
'29                                 ' 329163.87 4307259.10    1.80
'30                                 ' 329139.56 4307264.31    1.80
'31                                 ' 329112.72 4307269.69    1.80
'32                                 ' 329087.91 4307275.10    1.80
'33                                 ' 329063.72 4307280.36    1.80
'34                                 ' 328964.10 4307301.44    1.80
'Benning at 26th-Oklahoma' 25 1 0 'C'
    1
'NB Okla App1                       ' 'AG' 329004.47 4307039.78 329051.67 4307059.40 75.00 10.908  0.00  9.20
    1
'NB Okla App2                       ' 'AG' 329051.67 4307059.40 329093.81 4307102.95 75.00 10.908  0.00  9.20
    1
'NB Okla App3                       ' 'AG' 329093.95 4307103.24 329207.68 4307260.29 75.00 10.908  0.00  9.20
    2
'NB Okla Queue                      ' 'AG' 329199.49 4307249.01 329176.34 4307217.11  0.00  3.20    1
      100   71    2.00   75 69.04 1643    2    1
    1
'WB Benning at Okla App             ' 'AG' 329506.70 4307244.42 329203.17 4307275.64 2460.00 10.691  0.00 15.60
    1
'WB Benning at Okla L App           ' 'AG' 329415.99 4307246.77 329202.40 4307268.74 110.00 10.691  0.00  9.20
    2
'WB Benning at Okla Queue           ' 'AG' 329217.20 4307274.30 329266.93 4307269.16  0.00  9.60    3
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      100   32    2.00 2460 69.04 1671    2    1
    2
'WB Benning at Okla L Queue              ' 'AG' 329216.42 4307267.41 329265.52 4307262.34  0.00  3.20    1
      100   80    2.00  110 69.04 1745    2    1
    1
'WB Benning Btwn 26th and Okla           ' 'AG' 329203.12 4307275.55 329127.58 4307291.03 2535.00 10.691  0.00 15.60
    2
'WB Benning at 26th Queue                ' 'AG' 329135.87 4307289.30 329190.25 4307278.14  0.00  9.60    3
      100   54    2.00 2535 69.04 1630    2    1
    1
'WB Benning at 26th Dep                  ' 'AG' 329127.43 4307291.07 328829.55 4307354.62 2295.00 10.691  0.00 15.60
    1
'NB 26th Dep 1                           ' 'AG' 329129.22 4307290.91 329141.31 4307344.83 315.00 10.908  0.00  9.20
    1
'NB 26th Dep 2                           ' 'AG' 329141.40 4307344.76 329144.05 4307583.75 315.00 10.908  0.00  9.20
    1
'SB 26th App 1                           ' 'AG' 329139.00 4307583.14 329136.53 4307346.12 95.00 10.908  0.00  9.20
    1
'SB 26th App 2                           ' 'AG' 329136.38 4307345.96 329124.32 4307292.04 95.00 10.908  0.00  9.20
    2
'SB 26th App Queue                       ' 'AG' 329127.19 4307304.50 329136.36 4307345.49  0.00  3.20    1
      100   70    2.00   95 69.04 1683    2    1
    1
'EB Benning at 26th App                  ' 'AG' 328829.74 4307339.23 329123.24 4307276.72 970.00 10.691  0.00 15.60
    2
'EB Benning at 26th Queue                ' 'AG' 329109.99 4307279.60 329018.20 4307299.09  0.00  9.60    3
      100   33    2.00  925 69.04 1671    2    1
    2
'EB Benning at 26th L Queue              ' 'AG' 329111.71 4307285.64 329088.32 4307290.61  0.00  3.20    1
      100   79    2.00   45 69.04 1745    2    1
    1
'EB Benning Btwn 26th and Okla           ' 'AG' 329123.19 4307276.88 329200.49 4307260.50 995.00 10.691  0.00 15.60
    2
'EB Benning at Okla Queue                ' 'AG' 329182.53 4307264.30 329126.64 4307276.02  0.00  9.60    3
      100   52    2.00  995 69.04 1662    2    1
    1
'EB Benning at Okla Dep                  ' 'AG' 329200.66 4307260.75 329505.31 4307228.17 1000.00 10.691  0.00 15.60
    1
'SB Okla Dep 1                           ' 'AG' 329200.80 4307260.50 329087.97 4307104.63 140.00 10.908  0.00  9.20
    1
'SB Okla Dep 2                           ' 'AG' 329087.70 4307104.73 329047.30 4307063.04 140.00 10.908  0.00  9.20
    1
'SB Okla Dep 3                           ' 'AG' 329047.49 4307063.24 329002.32 4307044.43 140.00 10.908  0.00  9.20
 1.00   0.00 4 1000.00  0.00 'Y'   5   0  72
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Benning Road and 26th Street-Oklahoma Avenue – 2040 AM Peak, Output

JOB: DC Streetcar RUN: Benning at 26th-Oklahoma

DATE : 9/ 7/12
TIME : 2:56: 6

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 200. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	LENGTH (M)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)
1. NB Okla App1	329004.47	4307040.00	329051.66	4307059.50	51.	68.	AG	75.	10.9	0.0	9.2		
2. NB Okla App2	329051.66	4307059.50	329093.81	4307103.00	61.	44.	AG	75.	10.9	0.0	9.2		
3. NB Okla App3	329093.94	4307103.00	329207.69	4307260.50	194.	36.	AG	75.	10.9	0.0	9.2		
4. NB Okla Queue	329199.50	4307249.00	329193.94	4307241.50	10.	216.	AG	131.	100.0	0.0	3.2	0.18	1.6
5. WB Benning at Okla App	329506.69	4307244.50	329203.16	4307275.50	305.	276.	AG	2460.	10.7	0.0	15.6		
6. WB Benning at Okla L App	329416.00	4307247.00	329202.41	4307268.50	215.	276.	AG	110.	10.7	0.0	9.2		
7. WB Benning at Okla Queue	329217.19	4307274.50	329262.16	4307269.50	45.	96.	AG	178.	100.0	0.0	9.6	0.77	7.5
8. WB Benning at Okla L Queue	329216.41	4307267.50	329233.53	4307266.00	17.	96.	AG	148.	100.0	0.0	3.2	0.39	2.9
9. WB Benning Btwn 26th and Okla	329203.12	4307275.50	329127.59	4307291.00	77.	282.	AG	2535.	10.7	0.0	15.6		
10. WB Benning at 26th Queue	329135.88	4307289.50	329743.25	4307161.00	621.	102.	AG	300.	100.0	0.0	9.6	1.24	103.5
11. WB Benning at 26th Dep	329127.44	4307291.00	328829.56	4307354.50	305.	282.	AG	2295.	10.7	0.0	15.6		
12. NB 26th Dep 1	329129.22	4307291.00	329141.31	4307345.00	55.	13.	AG	315.	10.9	0.0	9.2		
13. NB 26th Dep 2	329141.41	4307345.00	329144.06	4307584.00	239.	1.	AG	315.	10.9	0.0	9.2		
14. SB 26th App 1	329139.00	4307583.00	329136.53	4307346.00	237.	181.	AG	95.	10.9	0.0	9.2		
15. SB 26th App 2	329136.38	4307346.00	329124.31	4307292.00	55.	193.	AG	95.	10.9	0.0	9.2		
16. SB 26th App Queue	329127.19	4307304.50	329129.78	4307316.00	12.	13.	AG	130.	100.0	0.0	3.2	0.22	2.0
17. EB Benning at 26th App	328829.75	4307339.00	329123.25	4307276.50	300.	102.	AG	970.	10.7	0.0	15.6		
18. EB Benning at 26th Queue	329110.00	4307279.50	329093.44	4307283.00	17.	282.	AG	183.	100.0	0.0	9.6	0.29	2.8
19. EB Benning at 26th L Queue	329111.72	4307285.50	329105.22	4307287.00	7.	282.	AG	146.	100.0	0.0	3.2	0.15	1.1
20. EB Benning Btwn 26th and Okla	329123.19	4307277.00	329200.50	4307260.50	79.	102.	AG	995.	10.7	0.0	15.6		
21. EB Benning at Okla Queue	329182.53	4307264.50	329153.94	4307270.50	29.	282.	AG	289.	100.0	0.0	9.6	0.45	4.9
22. EB Benning at Okla Dep	329200.66	4307261.00	329505.31	4307228.00	306.	96.	AG	1000.	10.7	0.0	15.6		
23. SB Okla Dep 1	329200.81	4307260.50	329087.97	4307104.50	193.	216.	AG	140.	10.9	0.0	9.2		
24. SB Okla Dep 2	329087.69	4307104.50	329047.31	4307063.00	58.	224.	AG	140.	10.9	0.0	9.2		
25. SB Okla Dep 3	329047.50	4307063.00	329002.31	4307044.50	49.	248.	AG	140.	10.9	0.0	9.2		

JOB: DC Streetcar RUN: Benning at 26th-Oklahoma

DATE : 9/ 7/12
TIME : 2:56: 6

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. NB Okla Queue	100	71	2.0	75	1643	69.04	2	1
7. WB Benning at Okla Queue	100	32	2.0	2460	1671	69.04	2	1
8. WB Benning at Okla L Queue	100	80	2.0	110	1745	69.04	2	1
10. WB Benning at 26th Queue	100	54	2.0	2535	1630	69.04	2	1
16. SB 26th App Queue	100	70	2.0	95	1683	69.04	2	1
18. EB Benning at 26th Queue	100	33	2.0	925	1671	69.04	2	1
19. EB Benning at 26th L Queue	100	79	2.0	45	1745	69.04	2	1
21. EB Benning at Okla Queue	100	52	2.0	995	1662	69.04	2	1

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. 1	329188.28	4307253.50	1.8
2. 2	329173.59	4307233.00	1.8
3. 3	329158.56	4307212.00	1.8
4. 4	329098.56	4307129.50	1.8
5. 5	329208.06	4307251.00	1.8
6. 6	329193.28	4307230.50	1.8
7. 7	329178.62	4307210.50	1.8
8. 8	329119.25	4307128.00	1.8
9. 9	329232.97	4307248.50	1.8
10. 10	329258.12	4307245.50	1.8
11. 11	329358.00	4307235.00	1.8
12. 12	329219.12	4307283.00	1.8
13. 13	329244.03	4307280.50	1.8
14. 14	329269.06	4307278.00	1.8
15. 15	329370.09	4307268.00	1.8
16. 16	329136.94	4307298.50	1.8
17. 17	329161.56	4307293.50	1.8
18. 18	329186.50	4307288.50	1.8
19. 19	329142.34	4307323.00	1.8
20. 20	329147.28	4307347.50	1.8
21. 21	329148.44	4307450.00	1.8
22. 22	329120.44	4307302.00	1.8
23. 23	329126.22	4307326.00	1.8
24. 24	329130.72	4307351.00	1.8
25. 25	329131.66	4307453.50	1.8
26. 26	329095.84	4307307.00	1.8
27. 27	329071.50	4307312.50	1.8
28. 28	328971.59	4307333.50	1.8
29. 29	329163.88	4307259.00	1.8
30. 30	329139.56	4307264.50	1.8
31. 31	329112.72	4307269.50	1.8
32. 32	329087.91	4307275.00	1.8
33. 33	329063.72	4307280.50	1.8
34. 34	328964.09	4307301.50	1.8

JOB: DC Streetcar RUN: Benning at 26th-Oklahoma

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	* 1.2	1.1	0.6	0.1	1.2	0.8	0.6	0.1	1.7	1.4	1.6	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2
5.	* 1.1	1.0	0.7	0.1	1.3	0.8	0.6	0.2	1.7	1.4	1.6	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1
10.	* 1.1	0.9	0.7	0.2	1.3	0.9	0.6	0.2	1.7	1.3	1.6	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1
15.	* 1.2	0.9	0.7	0.2	1.3	0.9	0.6	0.2	1.6	1.4	1.7	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.1
20.	* 1.2	0.8	0.6	0.2	1.5	0.9	0.5	0.2	1.6	1.4	1.7	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
25.	* 1.1	0.8	0.7	0.2	1.5	0.9	0.5	0.2	1.6	1.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30.	* 1.2	0.8	0.6	0.2	1.5	0.9	0.7	0.3	1.5	1.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35.	* 1.1	0.7	0.6	0.4	1.6	0.9	0.6	0.2	1.5	1.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.	* 1.4	0.9	0.8	0.3	1.6	1.0	0.6	0.2	1.5	1.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45.	* 1.4	1.0	0.8	0.3	1.8	1.0	0.6	0.2	1.6	1.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50.	* 1.4	1.0	0.7	0.3	1.8	0.9	0.6	0.3	1.6	1.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55.	* 1.6	1.0	0.7	0.4	1.8	0.9	0.6	0.3	1.5	1.5	1.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60.	* 1.7	1.0	0.7	0.4	1.7	0.9	0.7	0.3	1.6	1.5	1.9	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
65.	* 1.7	1.1	0.8	0.4	1.7	0.9	0.7	0.3	1.6	1.5	2.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
70.	* 1.9	1.2	0.8	0.3	2.0	0.8	0.7	0.2	1.7	1.8	2.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
75.	* 2.0	1.2	0.7	0.3	1.8	0.9	0.6	0.2	1.7	1.8	2.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0
80.	* 2.0	1.0	0.7	0.2	1.8	0.9	0.6	0.1	1.8	1.7	2.3	0.4	0.3	0.3	0.2	0.3	0.3	0.4	0.0	0.0
85.	* 1.8	1.0	0.7	0.2	1.7	0.9	0.6	0.1	1.7	1.7	2.3	0.7	0.6	0.6	0.4	0.5	0.6	0.7	0.0	0.0
90.	* 1.7	0.7	0.5	0.2	1.5	0.7	0.4	0.1	1.6	1.6	2.2	1.3	1.0	1.0	0.7	1.0	1.1	1.1	0.2	0.0
95.	* 1.2	0.6	0.4	0.1	1.3	0.5	0.3	0.0	1.3	1.4	1.9	1.9	1.7	1.4	1.1	1.6	1.6	1.7	0.2	0.2
100.	* 1.1	0.4	0.1	0.0	1.0	0.4	0.1	0.0	1.1	1.1	1.5	2.4	2.1	1.8	1.3	2.2	2.0	2.3	0.5	0.2
105.	* 0.7	0.1	0.1	0.0	0.6	0.1	0.1	0.0	0.8	0.7	1.2	2.8	2.4	2.1	1.6	2.5	2.5	2.6	0.7	0.4
110.	* 0.5	0.1	0.0	0.0	0.5	0.1	0.0	0.0	0.4	0.3	0.7	3.0	2.6	2.2	1.9	2.9	2.8	2.7	0.9	0.5
115.	* 0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.5	3.1	2.7	2.3	1.9	2.9	2.8	2.9	1.1	0.6
120.	* 0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.3	3.0	2.6	2.2	1.8	2.9	2.9	2.9	1.1	0.7
125.	* 0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.9	2.5	2.0	1.8	2.8	2.6	2.6	1.1	0.7
130.	* 0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	2.4	1.9	1.7	2.7	2.5	2.5	1.0	0.8
135.	* 0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	2.5	1.9	1.7	2.5	2.4	2.2	1.1	0.8
140.	* 0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.3	1.8	1.6	2.5	2.4	2.0	1.0	0.6
145.	* 0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.3	1.7	1.6	2.2	2.3	2.0	1.0	0.7
150.	* 0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.2	1.6	1.4	2.2	2.3	2.0	1.1	0.8
155.	* 0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.2	1.6	1.4	2.0	2.3	1.9	1.1	0.7
160.	* 0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.1	1.6	1.4	1.9	2.2	1.8	1.1	0.6
165.	* 0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.0	1.5	1.3	1.8	2.2	1.7	0.9	0.6
170.	* 0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.0	1.5	1.3	1.6	2.2	1.7	0.9	0.6
175.	* 0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.1	1.6	1.4	1.6	2.2	1.8	0.9	0.6
180.	* 0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.1	1.6	1.4	1.5	2.2	1.9	0.8	0.6
185.	* 0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	1.6	1.4	1.4	2.1	2.0	0.7	0.6
190.	* 0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	1.6	1.4	1.3	2.1	2.0	0.8	0.6
195.	* 0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.1	1.6	1.4	1.3	2.0	2.1	0.7	0.6
200.	* 0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	2.0	1.6	1.3	1.1	2.0	2.1	0.6	0.4
205.	* 0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.0	1.6	1.3	1.3	1.9	2.2	0.7	0.4

JOB: DC Streetcar RUN: Benning at 26th-Oklahoma

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.2	1.8	1.3	1.2	1.9	2.2	0.6	0.5
215.	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.2	1.8	1.4	1.2	1.9	2.2	0.7	0.4
220.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.2	1.9	1.4	1.1	1.8	2.2	0.8	0.4
225.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.3	2.0	1.5	1.2	1.8	2.2	0.7	0.4
230.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.4	2.1	1.5	1.3	1.9	2.2	0.7	0.4
235.	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.9	2.4	2.1	1.5	1.3	1.9	2.3	0.8	0.4
240.	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.5	2.2	1.7	1.3	1.9	2.4	0.7	0.5
245.	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.7	2.4	1.7	1.4	2.0	2.3	0.7	0.6
250.	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.8	2.8	1.8	1.4	2.2	2.4	0.7	0.6
255.	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	2.4	2.7	2.8	1.9	1.5	2.2	2.4	0.6	0.5
260.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	2.7	2.6	3.0	1.9	1.6	2.1	2.5	0.6	0.5
265.	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.1	0.4	2.4	2.6	2.8	2.1	1.5	2.1	2.3	0.6	0.4
270.	0.4	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.7	0.9	2.3	2.5	2.5	1.9	1.5	1.9	2.4	0.6	0.4
275.	0.5	0.0	0.0	0.0	0.8	0.1	0.0	0.0	0.8	0.9	1.4	2.0	2.0	2.2	1.5	1.5	1.7	1.9	0.5	0.2
280.	0.7	0.2	0.0	0.0	1.1	0.2	0.0	0.0	1.1	1.3	2.0	1.6	1.5	1.6	1.2	1.2	1.4	1.6	0.3	0.2
285.	1.2	0.3	0.1	0.0	1.4	0.3	0.2	0.0	1.3	1.5	2.3	1.1	1.1	1.2	0.9	1.0	1.1	1.3	0.2	0.1
290.	1.4	0.3	0.2	0.0	1.6	0.3	0.2	0.0	1.6	1.9	2.4	0.8	0.7	0.6	0.5	0.8	0.8	0.9	0.2	0.1
295.	1.7	0.4	0.3	0.0	1.8	0.5	0.3	0.0	1.9	1.9	2.5	0.5	0.4	0.4	0.2	0.5	0.4	0.5	0.1	0.1
300.	1.9	0.4	0.3	0.0	1.9	0.7	0.3	0.0	1.7	1.9	2.3	0.3	0.1	0.1	0.1	0.4	0.2	0.2	0.1	0.1
305.	2.0	0.5	0.3	0.0	1.6	0.7	0.3	0.1	1.8	2.0	2.3	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.1
310.	1.9	0.6	0.3	0.1	1.8	0.9	0.3	0.1	1.8	1.8	2.1	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.1
315.	2.0	0.6	0.3	0.1	1.5	0.8	0.3	0.1	1.7	1.9	2.0	0.0	0.1	0.0	0.0	0.3	0.1	0.1	0.1	0.1
320.	1.9	0.7	0.3	0.2	1.5	0.9	0.5	0.2	1.8	1.7	2.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.1	0.1
325.	1.9	0.6	0.3	0.2	1.4	1.0	0.4	0.2	1.7	1.8	1.9	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.1
330.	1.8	0.8	0.5	0.2	1.3	1.0	0.5	0.2	1.5	1.7	1.8	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.2
335.	1.6	0.8	0.4	0.2	1.3	1.0	0.6	0.2	1.5	1.7	1.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.2
340.	1.5	0.9	0.4	0.2	1.3	1.0	0.6	0.2	1.7	1.6	1.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.2
345.	1.4	1.0	0.6	0.2	1.4	1.1	0.7	0.1	1.6	1.5	1.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2
350.	1.3	1.0	0.5	0.1	1.2	0.9	0.7	0.1	1.6	1.5	1.7	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.2	0.2
355.	1.3	1.0	0.6	0.1	1.2	0.9	0.7	0.1	1.7	1.5	1.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2
360.	1.2	1.1	0.6	0.1	1.2	0.8	0.6	0.1	1.7	1.4	1.6	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2
MAX	2.0	1.2	0.8	0.4	2.0	1.1	0.7	0.3	1.9	2.0	2.5	3.1	2.8	3.0	2.1	2.9	2.9	2.9	1.1	0.8
DEGR.	75	70	40	35	70	345	30	30	295	305	295	115	250	260	265	110	120	115	115	130

JOB: DC Streetcar RUN: Benning at 26th-Oklahoma

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34
0.	* 0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	1.9	1.0	0.9	0.7	0.7	0.7
5.	* 0.1	0.0	0.1	0.2	0.1	0.0	0.0	0.0	2.0	1.2	0.8	0.7	0.7	0.7
10.	* 0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.0	2.0	1.2	0.7	0.7	0.7	0.7
15.	* 0.0	0.2	0.1	0.2	0.2	0.0	0.0	0.0	2.0	1.2	0.7	0.8	0.7	0.7
20.	* 0.0	0.1	0.1	0.2	0.2	0.0	0.0	0.0	2.0	1.2	0.7	0.8	0.7	0.7
25.	* 0.0	0.2	0.1	0.2	0.1	0.0	0.0	0.0	1.9	1.2	0.8	0.9	0.7	0.7
30.	* 0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0	1.9	1.2	0.9	0.9	0.7	0.7
35.	* 0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0	2.0	1.2	0.9	1.0	0.7	0.7
40.	* 0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0	2.0	1.4	1.0	1.0	0.7	0.7
45.	* 0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0	2.1	1.4	0.9	1.0	0.7	0.7
50.	* 0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0	2.1	1.5	1.0	1.2	0.7	0.7
55.	* 0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0	2.2	1.6	1.2	1.5	0.9	0.9
60.	* 0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0	2.2	1.8	1.3	1.5	0.9	0.9
65.	* 0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.1	2.3	1.9	1.3	1.5	1.0	0.9
70.	* 0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	2.3	2.0	1.7	1.6	1.1	0.9
75.	* 0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	2.3	2.3	1.6	1.8	1.4	1.0
80.	* 0.0	0.5	0.1	0.1	0.1	0.3	0.1	0.1	2.3	2.3	1.9	1.8	1.4	1.1
85.	* 0.0	0.6	0.1	0.1	0.1	0.5	0.4	0.3	2.1	2.3	2.1	2.0	1.7	1.3
90.	* 0.0	1.0	0.3	0.1	0.1	1.0	0.6	0.6	2.0	2.4	2.0	2.0	1.8	1.3
95.	* 0.0	1.5	0.3	0.3	0.1	1.3	1.2	1.0	1.7	2.2	1.8	1.8	1.7	1.2
100.	* 0.0	2.1	0.6	0.3	0.1	1.7	1.4	1.3	1.2	1.7	1.4	1.5	1.6	1.0
105.	* 0.0	2.5	0.8	0.5	0.1	2.2	2.0	1.5	0.9	1.0	1.0	1.1	1.2	0.8
110.	* 0.1	2.8	1.1	0.7	0.2	2.2	2.0	1.6	0.5	0.7	0.6	0.7	0.8	0.5
115.	* 0.1	2.6	1.2	0.6	0.3	2.0	2.0	1.7	0.3	0.3	0.3	0.3	0.2	0.3
120.	* 0.2	2.7	1.2	0.6	0.3	2.0	1.9	1.5	0.1	0.1	0.0	0.1	0.1	0.1
125.	* 0.2	2.3	1.3	0.8	0.3	1.5	1.6	1.3	0.0	0.1	0.0	0.0	0.1	0.1
130.	* 0.2	2.0	1.2	0.8	0.3	1.5	1.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0
135.	* 0.2	1.9	1.2	0.7	0.3	1.4	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
140.	* 0.2	1.6	1.1	0.7	0.3	1.3	1.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
145.	* 0.2	1.5	1.2	0.9	0.3	1.3	1.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
150.	* 0.2	1.3	1.1	0.8	0.3	1.2	1.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
155.	* 0.2	1.1	1.0	0.7	0.4	1.2	1.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
160.	* 0.3	0.9	0.9	0.7	0.5	1.2	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
165.	* 0.2	1.0	1.0	0.7	0.4	1.1	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
170.	* 0.3	0.9	0.8	0.7	0.4	1.1	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
175.	* 0.3	1.0	0.8	0.6	0.3	1.1	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
180.	* 0.3	0.9	0.7	0.5	0.4	1.1	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
185.	* 0.4	0.8	0.6	0.4	0.1	1.0	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
190.	* 0.4	0.9	0.6	0.4	0.1	1.1	0.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
195.	* 0.3	1.0	0.6	0.3	0.1	1.1	0.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
200.	* 0.3	1.0	0.5	0.3	0.1	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
205.	* 0.3	1.1	0.5	0.3	0.1	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0

JOB: DC Streetcar RUN: Benning at 26th-Oklahoma

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34
210.	0.3	1.2	0.5	0.3	0.1	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
215.	0.2	1.2	0.5	0.3	0.1	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
220.	0.2	1.2	0.5	0.3	0.1	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
225.	0.2	1.3	0.4	0.3	0.1	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
230.	0.2	1.3	0.4	0.3	0.1	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
235.	0.2	1.1	0.5	0.3	0.1	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
240.	0.2	1.2	0.5	0.4	0.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
245.	0.2	1.2	0.5	0.4	0.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
250.	0.2	1.3	0.5	0.4	0.1	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
255.	0.2	1.2	0.5	0.4	0.1	1.3	1.2	1.2	0.0	0.0	0.0	0.0	0.1	0.0
260.	0.1	1.3	0.5	0.4	0.0	1.3	1.3	1.3	0.0	0.0	0.1	0.1	0.1	0.1
265.	0.1	1.4	0.5	0.3	0.0	1.4	1.4	1.4	0.2	0.1	0.1	0.1	0.1	0.1
270.	0.1	1.4	0.5	0.2	0.0	1.4	1.4	1.4	0.3	0.3	0.3	0.3	0.3	0.2
275.	0.1	1.4	0.4	0.1	0.0	1.4	1.3	1.2	0.4	0.6	0.4	0.4	0.4	0.4
280.	0.1	1.1	0.2	0.1	0.0	1.2	1.1	1.0	0.7	0.8	0.7	0.6	0.6	0.4
285.	0.1	0.9	0.1	0.0	0.0	0.9	0.9	0.7	1.0	1.0	0.9	0.8	0.8	0.6
290.	0.1	0.7	0.1	0.0	0.0	0.6	0.6	0.5	1.2	1.1	1.1	0.9	0.9	0.8
295.	0.1	0.4	0.0	0.0	0.0	0.4	0.4	0.3	1.3	1.1	1.2	1.0	1.0	0.9
300.	0.1	0.2	0.0	0.0	0.0	0.2	0.2	0.2	1.3	1.2	1.3	1.0	1.0	1.0
305.	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	1.4	1.1	1.3	1.0	1.0	1.0
310.	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	1.7	1.1	1.3	0.9	1.0	0.9
315.	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	1.6	0.9	1.3	0.9	0.9	0.9
320.	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	1.7	0.9	1.3	0.9	0.9	0.9
325.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.9	1.3	0.9	0.9	0.9
330.	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.8	1.4	0.9	0.9	0.9
335.	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.9	1.1	0.7	0.7	0.7
340.	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.9	1.1	0.7	0.7	0.7
345.	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.0	1.0	0.7	0.7	0.7
350.	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.0	1.0	0.7	0.7	0.7
355.	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.9	1.2	1.0	0.7	0.7	0.7
360.	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	1.9	1.0	0.9	0.7	0.7	0.7
MAX	0.4	2.8	1.3	0.9	0.5	2.2	2.0	1.7	2.3	2.4	2.1	2.0	1.8	1.3
DEGR.	185	110	125	145	160	105	115	115	70	90	85	85	90	85

THE HIGHEST CONCENTRATION OF 3.10 PPM OCCURRED AT RECEPTOR REC12.