

**APPENDIX N**  
**Air Analysis**

**Contract No. 813  
Project NCPD-PE02(910)  
I-85 Extension from I-59/I-20 near the Mississippi State Line  
NE of Cuba to I-65 near Montgomery  
Various Counties, Alabama**

### **Air Quality Data**

An estimate of CO emissions along the proposed project was developed using MOBILE 6.2 and CALINE models. Traffic, along with roadway geometry and potential locations of areas sensitive to air emissions, were entered into the models. The results/output data of these models are contained within this appendix. The models indicate that the proposed project is expected to be below the NAAQS for CO.



JOB: I 85 2030 FREE FLOW CONTOUR RECEPTORS

RUN: I-85 2030 MAIN LINE FREE FLOW ANALYSIS

DATE : 3/26/ 8  
 TIME : 15:39:24

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

SITE & METEOROLOGICAL VARIABLES

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 VS = .0 CM/S      VD = .0 CM/S      Z0 = 198. CM  
 U = 1.0 M/S      CLAS = 3 (C)      ATIM = 60. MINUTES      MIXH = 1000. M      AMB = 2.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG TYPE	VPH	EF	H	W	V/C
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT)	(FT)	
1. WB	*	175.1	33.7	175.1	446.6	*	413.	360. AG	1589.	13.0	.0	44.0	
2. EB	*	61.1	446.6	61.1	33.7	*	413.	180. AG	1199.	13.0	.0	44.0	

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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
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RECEPTOR LOCATIONS

RECEPTOR	* * *	COORDINATES (FT)			* * *
		X	Y	Z	
1. Rec @ 10 Ft Peak Sid	*	197.1	240.1	5.9	*
2. Rec @ 15 Ft Peak Sid	*	202.1	240.1	5.9	*
3. Rec @ 20 Ft Peak Sid	*	207.1	240.1	5.9	*
4. Rec @ 25 Ft Peak Sid	*	212.1	240.1	5.9	*
5. Rec @ 30 Ft Peak Sid	*	217.1	240.1	5.9	*
6. Rec @ 10 Ft Off Peak	*	39.1	240.1	5.9	*
7. Rec @ 15 Ft Off Peak	*	34.1	240.1	5.9	*
8. Rec @ 20 Ft Off Peak	*	29.1	240.1	5.9	*
9. Rec @ 25 Ft Off Peak	*	24.1	240.1	5.9	*
10. Rec @ 30 Ft Off Peak	*	19.1	240.1	5.9	*

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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
0.	*	2.7	2.5	2.4	2.3	2.2	2.5	2.4	2.3	2.2	2.2
10.	*	2.5	2.4	2.3	2.2	2.2	2.5	2.5	2.4	2.3	2.3
20.	*	2.3	2.2	2.2	2.1	2.1	2.7	2.6	2.5	2.5	2.3
30.	*	2.2	2.1	2.1	2.0	2.0	2.7	2.6	2.6	2.5	2.5
40.	*	2.1	2.1	2.0	2.0	2.0	2.7	2.6	2.6	2.5	2.5
50.	*	2.1	2.0	2.0	2.0	2.0	2.7	2.7	2.6	2.6	2.5
60.	*	2.0	2.0	2.0	2.0	2.0	2.7	2.7	2.6	2.6	2.6
70.	*	2.0	2.0	2.0	2.0	2.0	2.7	2.7	2.6	2.6	2.6
80.	*	2.0	2.0	2.0	2.0	2.0	2.7	2.7	2.6	2.6	2.6
90.	*	2.0	2.0	2.0	2.0	2.0	2.7	2.7	2.6	2.6	2.6
100.	*	2.0	2.0	2.0	2.0	2.0	2.7	2.7	2.6	2.6	2.6
110.	*	2.0	2.0	2.0	2.0	2.0	2.7	2.7	2.6	2.6	2.6
120.	*	2.0	2.0	2.0	2.0	2.0	2.7	2.7	2.6	2.6	2.6
130.	*	2.1	2.0	2.0	2.0	2.0	2.7	2.7	2.6	2.6	2.5
140.	*	2.1	2.1	2.0	2.0	2.0	2.7	2.6	2.6	2.5	2.5
150.	*	2.2	2.1	2.1	2.0	2.0	2.7	2.6	2.6	2.5	2.5
160.	*	2.3	2.2	2.2	2.1	2.1	2.7	2.6	2.5	2.5	2.3
170.	*	2.5	2.4	2.3	2.2	2.2	2.5	2.5	2.4	2.3	2.3
180.	*	2.7	2.5	2.4	2.3	2.2	2.5	2.4	2.3	2.2	2.2
190.	*	2.7	2.6	2.5	2.4	2.4	2.4	2.3	2.2	2.1	2.1
200.	*	2.9	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.1
210.	*	2.9	2.8	2.7	2.6	2.6	2.2	2.1	2.1	2.0	2.0
220.	*	2.8	2.8	2.7	2.6	2.6	2.1	2.1	2.0	2.0	2.0
230.	*	2.8	2.7	2.7	2.6	2.6	2.1	2.0	2.0	2.0	2.0
240.	*	2.8	2.7	2.7	2.6	2.6	2.0	2.0	2.0	2.0	2.0
250.	*	2.8	2.7	2.7	2.6	2.6	2.0	2.0	2.0	2.0	2.0
260.	*	2.9	2.7	2.7	2.6	2.6	2.0	2.0	2.0	2.0	2.0
270.	*	2.9	2.8	2.7	2.6	2.6	2.0	2.0	2.0	2.0	2.0
280.	*	2.9	2.7	2.7	2.6	2.6	2.0	2.0	2.0	2.0	2.0
290.	*	2.8	2.7	2.7	2.6	2.6	2.0	2.0	2.0	2.0	2.0
300.	*	2.8	2.7	2.7	2.6	2.6	2.0	2.0	2.0	2.0	2.0
310.	*	2.8	2.7	2.7	2.6	2.6	2.1	2.0	2.0	2.0	2.0
320.	*	2.8	2.8	2.7	2.6	2.6	2.1	2.1	2.0	2.0	2.0
330.	*	2.9	2.8	2.7	2.6	2.6	2.2	2.1	2.1	2.0	2.0
340.	*	2.9	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.1
350.	*	2.7	2.6	2.5	2.4	2.4	2.4	2.3	2.2	2.1	2.1
360.	*	2.7	2.5	2.4	2.3	2.2	2.5	2.4	2.3	2.2	2.2
MAX	*	2.9	2.8	2.7	2.6	2.6	2.7	2.7	2.6	2.6	2.6
DEGR.	*	200	210	210	210	210	20	50	30	50	60

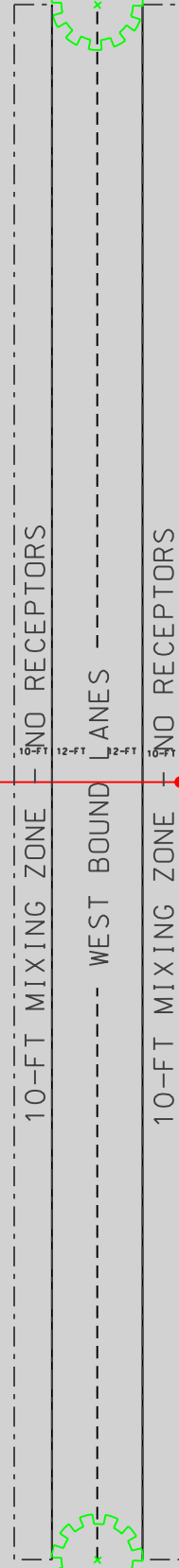
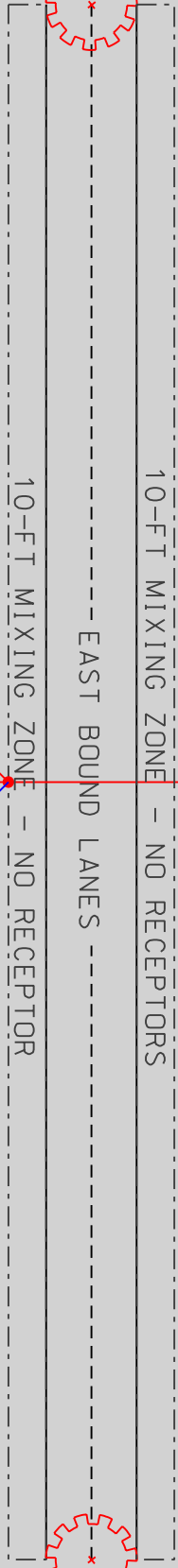
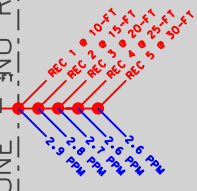
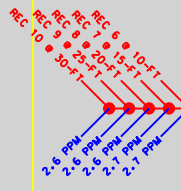
THE HIGHEST CONCENTRATION OF 2.90 PPM OCCURRED AT RECEPTOR REC1 .

EB 1

WB 2

OFF PEAK SIDE

PEAK SIDE



EB 2

WB 1