

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Bradley Landfill Expansion

Background Information

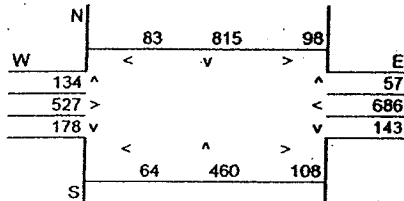
Nearest Air Monitoring Station measuring CO: Burbank- West Palm Avenue
 Background 1-hour CO Concentration (ppm): 6.0
 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2005

Roadway Data

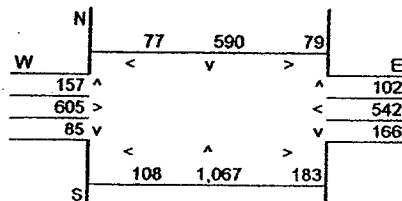
Intersection: San Fernando Rd./Sheldon St.
 Analysis Condition: Existing Traffic Volumes

Roadway Type	No. of Lanes	Average Speed		
		A.M.	P.M.	
North-South Roadway: San Fernando Road	At Grade	4	20	20
East-West Roadway: Sheldon Street	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	1,768	N-S Road:	2,199
E-W Road:	1,672	E-W Road:	1,677

Roadway CO Contributions and Concentrations

$$\text{Emissions} = (A \times B \times C) / 100,000^1$$

Roadway	Reference CO Concentrations			B Traffic Volume	C Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,768	6.93	0.86	0.66	0.47
East-West Road	2.7	2.2	1.7	1,672	6.93	0.31	0.26	0.20
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,199	6.93	1.07	0.82	0.58
East-West Road	2.7	2.2	1.7	1,677	6.93	0.31	0.26	0.20

¹ Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

² Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

$$\text{Peak Hour Emissions} = \text{North-South Concentration} + \text{East-West Concentration} + \text{Background 1-hour Concentration}^2$$

$$\text{8-Hour Emissions} = ((\text{Highest Peak Hour Concentration} - \text{Background 1-hour Concentration}) \times \text{Persistence Factor}) + \text{Background 8-hour Concentration}^2$$

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.2	7.4	4.4
50 Feet from Roadway Edge	6.9	7.1	4.2
100 Feet from Roadway Edge	6.7	6.8	3.9

² Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

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 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2005

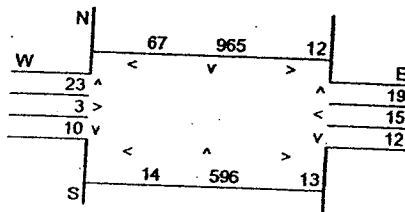
Roadway Data

Intersection: Glen Oaks Blvd./Peoria St
 Analysis Condition: Existing Traffic Volumes

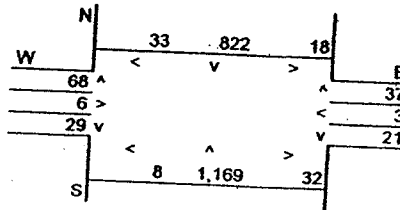
North-South Roadway: Glen Oaks Blvd.
 East-West Roadway: Peoria Street

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
At Grade	4	20	20
At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,682
 E-W Road: 132

N-S Road: 2,147
 E-W Road: 147

Roadway CO Contributions and Concentrations

$$\text{Emissions} = (A \times B \times C) / 100,000^1$$

Roadway	A ₁	A ₂	A ₃	B	C	Estimated CO Concentrations		
	Reference CO Concentrations 25 Feet	50 Feet	100 Feet			Traffic Volume	Emission Factors ²	25 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,682	6.93	0.82	0.63	0.44
East-West Road	2.7	2.2	1.7	132	6.93	0.02	0.02	0.02
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,147	6.93	1.04	0.80	0.57
East-West Road	2.7	2.2	1.7	147	6.93	0.03	0.02	0.02

¹ Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).
² Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

$$\text{Peak Hour Emissions} = \text{North-South Concentration} + \text{East-West Concentration} + \text{Background 1-hour Concentration}^2$$

$$\text{8-Hour Emissions} = ((\text{Highest Peak Hour Concentration} - \text{Background 1-hour Concentration}) \times \text{Persistence Factor}) + \text{Background 8-hour Concentration}^2$$

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.8	7.1	4.1
50 Feet from Roadway Edge	6.6	6.8	4.0
100 Feet from Roadway Edge	6.5	6.6	3.8

² Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

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Background Information

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 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2005

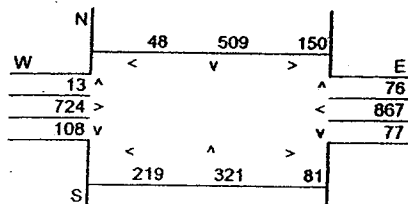
Roadway Data

Intersection: San Fernando Rd./Tuxford St.
 Analysis Condition: Existing Traffic Volumes

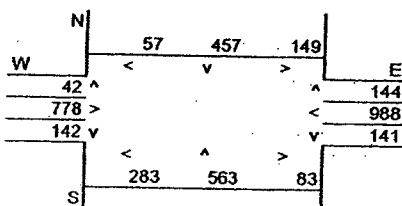
Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
At Grade	4	20	20
At Grade	4	20	20

North-South Roadway: San Fernando Road
 East-West Roadway: Tuxford Street

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,315
 E-W Road: 1,979

N-S Road: 1,669
 E-W Road: 2,290

Roadway CO Contributions and Concentrations

$$\text{Emissions} = (A \times B \times C) / 100,000^1$$

Roadway	Reference CO Concentrations			B Traffic Volume	C Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,315	6.93	0.24	0.20	0.15
East-West Road	7.0	5.4	3.8	1,979	6.93	0.96	0.74	0.52
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,669	6.93	0.30	0.25	0.20
East-West Road	7.0	5.4	3.8	2,290	6.93	1.11	0.86	0.60

¹ Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

² Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

$$\text{Peak Hour Emissions} = \text{North-South Concentration} + \text{East-West Concentration} + \text{Background 1-hour Concentration}^2$$

$$\text{8-Hour Emissions} = ((\text{Highest Peak Hour Concentration} - \text{Background 1-hour Concentration}) \times \text{Persistence Factor}) + \text{Background 8-hour Concentration}^2$$

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.2	7.4	4.4
50 Feet from Roadway Edge	6.9	7.1	4.2
100 Feet from Roadway Edge	6.7	6.8	4.0

² Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

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Nearest Air Monitoring Station measuring CO: Burbank- West Palm Avenue
 Background 1-hour CO Concentration (ppm): 6.0
 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2005

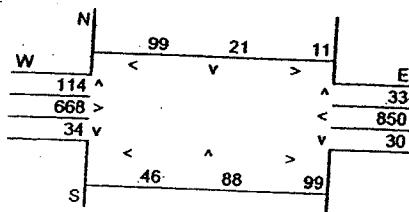
Roadway Data

Intersection: Bradley Ave./Tuxford St.
 Analysis Condition: Existing Traffic Volumes

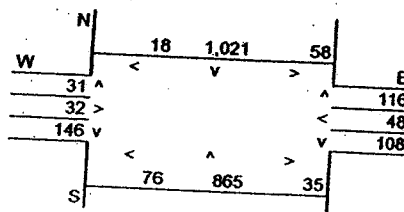
North-South Roadway: Bradley Avenue.
 East-West Roadway: Tuxford Street

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
At Grade	2	20	20
At Grade	4	20	10

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 366
 E-W Road: 1,811

N-S Road: 2,251
 E-W Road: 397

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	Reference CO Concentrations			B Traffic Volume	C Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	366	6.93	0.07	0.06	0.04
East-West Road	7.0	5.4	3.8	1,811	6.93	0.88	0.68	0.48
P.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	2,251	6.93	1.19	0.89	0.62
East-West Road	2.6	2.2	1.7	397	9.74	0.10	0.09	0.07

¹ Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).
² Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration²
 8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration²

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.9	7.3	4.3
50 Feet from Roadway Edge	6.7	7.0	4.1
100 Feet from Roadway Edge	6.5	6.7	3.9

² Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

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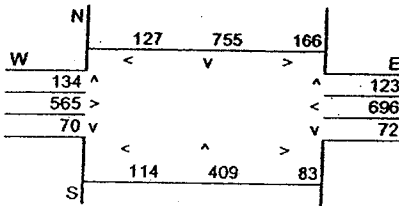
Nearest Air Monitoring Station measuring CO: Burbank- West Palm Avenue
 Background 1-hour CO Concentration (ppm): 6.0
 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2005

Roadway Data

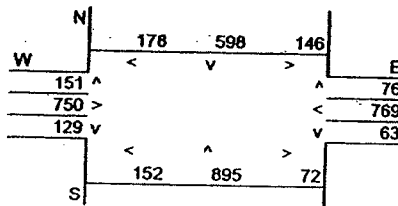
Intersection: Glen Oaks Blvd./Tuxford St.
 Analysis Condition: Existing Traffic Volumes

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway: Glen Oaks Blvd.	At Grade	4	20	20
East-West Roadway: Tuxford Street	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	1,714	N-S Road:	2,044
E-W Road:	1,706	E-W Road:	2,129

Roadway CO Contributions and Concentrations

$$\text{Emissions} = (A \times B \times C) / 100,000^1$$

Roadway	Reference CO Concentrations			B Traffic Volume	C Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	1,714	6.93	0.83	0.64	0.45
East-West Road	2.6	2.2	1.7	1,706	6.93	0.31	0.26	0.20
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	2,044	6.93	0.37	0.31	0.24
East-West Road	7.0	5.4	3.8	2,129	6.93	1.03	0.80	0.56

¹ Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

² Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

$$\text{Peak Hour Emissions} = \text{North-South Concentration} + \text{East-West Concentration} + \text{Background 1-hour Concentration}^2$$

$$\text{8-Hour Emissions} = ((\text{Highest Peak Hour Concentration} - \text{Background 1-hour Concentration}) \times \text{Persistence Factor}) + \text{Background 8-hour Concentration}^2$$

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.1	7.4	4.4
50 Feet from Roadway Edge	6.9	7.1	4.2
100 Feet from Roadway Edge	6.7	6.8	4.0

² Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

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Nearest Air Monitoring Station measuring CO: Burbank- West Palm Avenue
 Background 1-hour CO Concentration (ppm): 6.0
 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2005

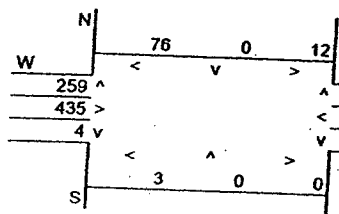
Roadway Data

Intersection: Bradley Ave./Penrose St.
 Analysis Condition: Existing Traffic Volumes

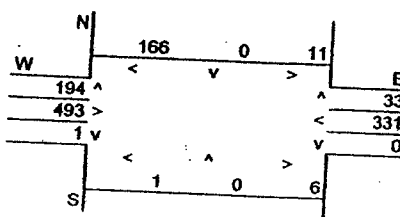
North-South Roadway: Bradley Avenue
 East-West Roadway: Penrose Street

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
At Grade	2	20	20
At Grade	4	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 376
 E-W Road: 1,040

N-S Road: 404
 E-W Road: 1,186

Roadway CO Contributions and Concentrations

$$\text{Emissions} = (A \times B \times C) / 100,000^1$$

Roadway	Reference CO Concentrations			B Traffic Volume	C Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	376	6.93	0.07	0.06	0.04
East-West Road	7.0	5.4	3.8	1,040	6.93	0.50	0.39	0.27
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	404	6.93	0.08	0.06	0.05
East-West Road	7.0	5.4	3.8	1,186	6.93	0.58	0.44	0.31

¹ Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).
² Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration²

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration²

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.6	6.7	3.9
50 Feet from Roadway Edge	6.4	6.5	3.8
100 Feet from Roadway Edge	6.3	6.4	3.7

² Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

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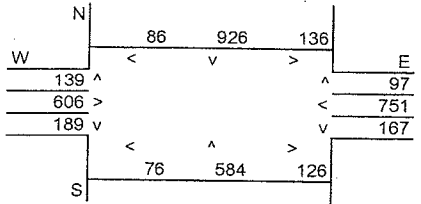
Nearest Air Monitoring Station measuring CO: Burbank- West Palm Avenue
 Background 1-hour CO Concentration (ppm): 6.0
 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2007

Roadway Data

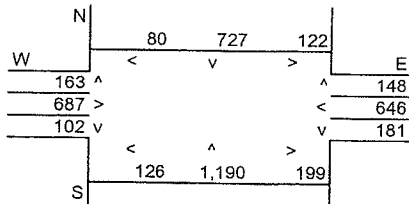
Intersection: San Fernando Rd./Sheldon St.
 Analysis Condition: Future w. Phase I Plus Mitigation Traffic Volumes

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	San Fernando Road	4	20	15
East-West Roadway:	Sheldon Street	2	20	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	2,068	N-S Road:	2,525
E-W Road:	1,883	E-W Road:	1,983

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	Reference CO Concentrations			Traffic Volume	Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			B	C	25 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,068	5.98	0.87	0.67	0.47
East-West Road	2.7	2.2	1.7	1,883	5.98	0.30	0.25	0.19
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,525	6.97	1.23	0.95	0.67
East-West Road	2.7	2.2	1.7	1,983	6.97	0.37	0.30	0.23

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

² Emission factors from EMFAC2002 (2003).

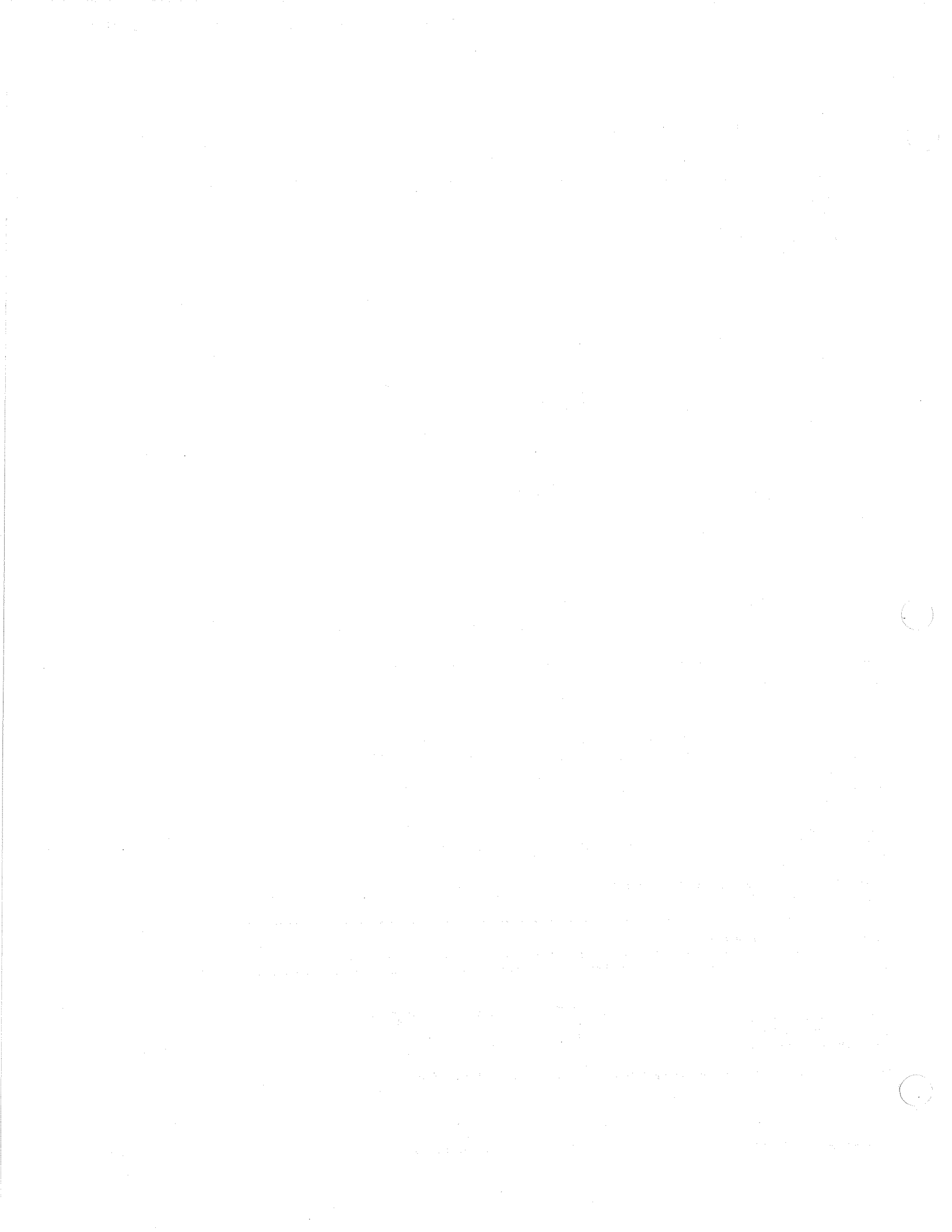
Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration²

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration²

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.2	7.6	4.5
50 Feet from Roadway Edge	6.9	7.3	4.3
100 Feet from Roadway Edge	6.7	6.9	4.0

² Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).



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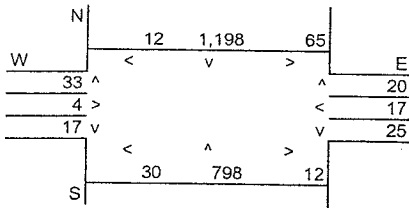
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 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2007

Roadway Data

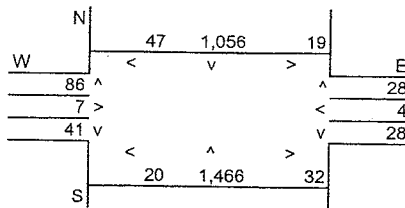
Intersection: Glen Oaks Blvd./Peoria St
 Analysis Condition: Future w. Phase I Construction Traffic Volumes

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway: Glen Oaks Blvd.	At Grade	4	20	20
East-West Roadway: Peoria Street	At Grade	2	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	2,126	N-S Road:	2,702
E-W Road:	143	E-W Road:	205

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	Reference CO Concentrations			Traffic Volume	Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			B	C	25 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,126	5.98	0.89	0.69	0.48
East-West Road	2.7	2.2	1.7	143	5.98	0.02	0.02	0.01
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,702	5.98	1.13	0.87	0.61
East-West Road	2.7	2.2	1.7	205	5.98	0.03	0.03	0.02

¹ Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

² Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration²

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration²

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.9	7.2	4.2
50 Feet from Roadway Edge	6.7	6.9	4.0
100 Feet from Roadway Edge	6.5	6.6	3.8

² Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).



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 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2007

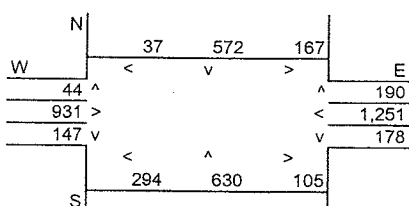
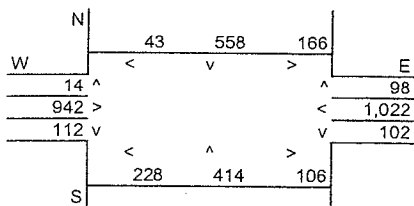
Roadway Data

Intersection: San Fernando Rd./Tuxford St.
 Analysis Condition: Future w. Phase I Plus Mitigation Traffic Volumes

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway: San Fernando Road	At Grade	4	20	15
East-West Roadway: Tuxford Street	At Grade	4	20	15

A.M. Peak Hour Traffic Volumes

P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	1,520	N-S Road:	1,926
E-W Road:	2,436	E-W Road:	2,822

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	Reference CO Concentrations			B Traffic Volume	C Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,520	5.98	0.24	0.20	0.15
East-West Road	7.0	5.4	3.8	2,436	5.98	1.02	0.79	0.55
P.M. Peak Traffic Hour								
North-South Road	2.6	2.2	1.7	1,926	6.97	0.35	0.30	0.23
East-West Road	7.0	5.4	3.8	2,822	6.97	1.38	1.06	0.75

¹ Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

² Emission factors from EMFAC2002 (2003).

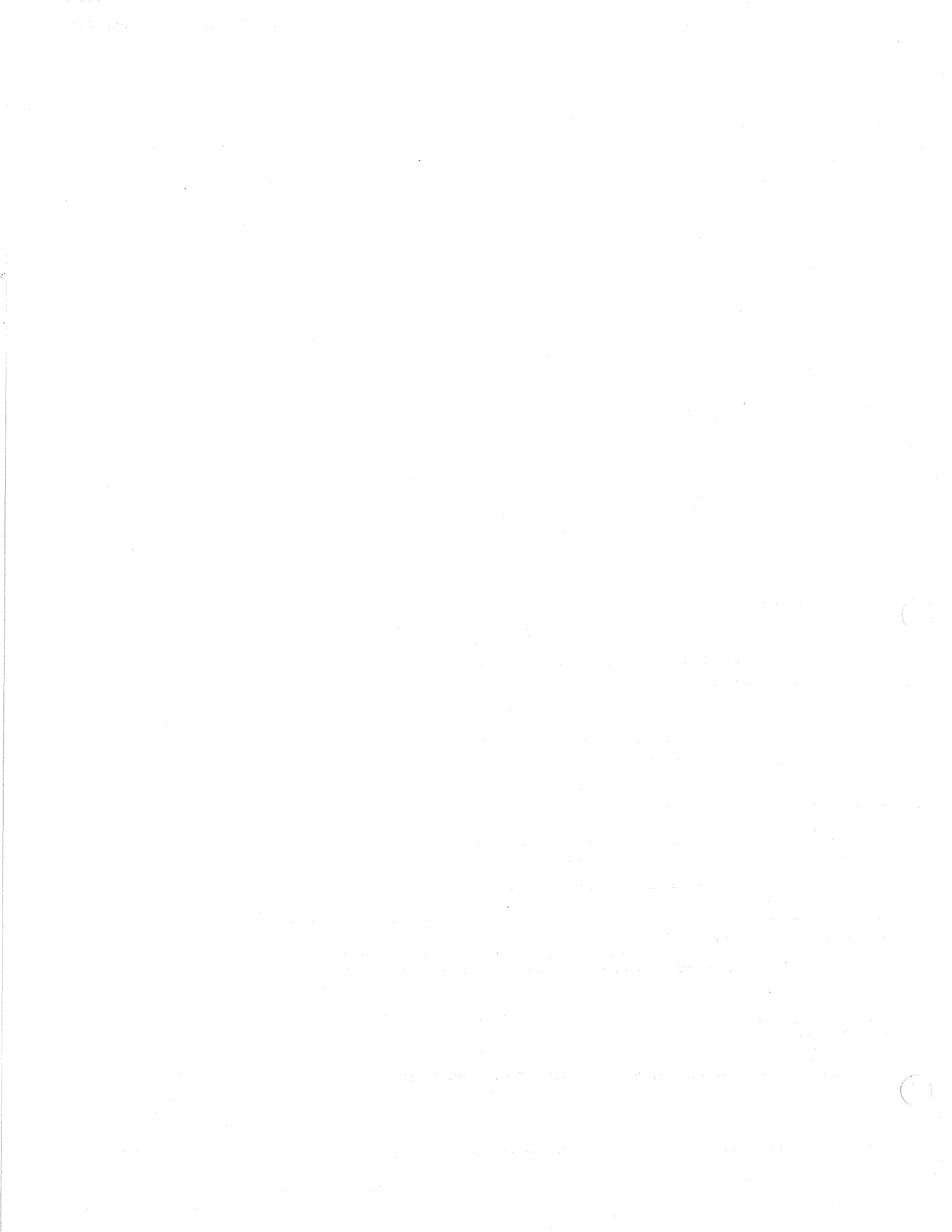
Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration²

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration²

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.3	7.7	4.6
50 Feet from Roadway Edge	7.0	7.4	4.3
100 Feet from Roadway Edge	6.7	7.0	4.1

² Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).



SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Bradley Landfill Expansion

Background Information

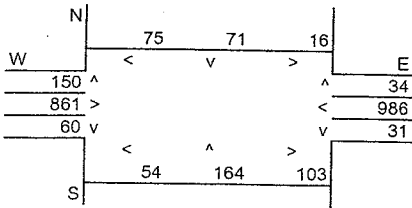
Nearest Air Monitoring Station measuring CO: Burbank- West Palm Avenue
 Background 1-hour CO Concentration (ppm): 6.0
 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2007

Roadway Data

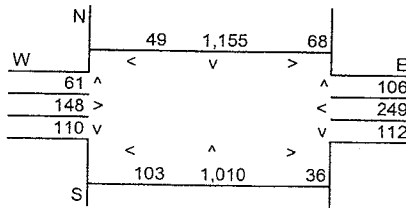
Intersection: Bradley Ave./Tuxford St.
 Analysis Condition: Future w. Phase I Plus Mitigation Traffic Volumes

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway: Bradley Avenue	At Grade	2	20	5
East-West Roadway: Tuxford Street	At Grade	4	20	5

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	510	N-S Road:	2,526
E-W Road:	2,186	E-W Road:	720

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	Reference CO Concentrations			Traffic Volume	Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			B	C	25 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	510	5.98	0.08	0.07	0.05
East-West Road	7.0	5.4	3.8	2,186	5.98	0.92	0.71	0.50
P.M. Peak Traffic Hour								
North-South Road	7.6	5.7	4.0	2,526	10.47	2.01	1.51	1.06
East-West Road	2.6	2.2	1.7	720	10.47	0.20	0.17	0.13

¹ Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

² Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration²

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration²

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.0	8.2	4.9
50 Feet from Roadway Edge	6.8	7.7	4.6
100 Feet from Roadway Edge	6.5	7.2	4.2

² Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).



SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Bradley Landfill Expansion

Background Information

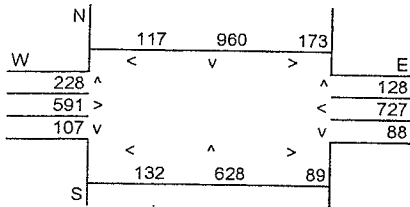
Nearest Air Monitoring Station measuring CO: Burbank- West Palm Avenue
 Background 1-hour CO Concentration (ppm): 6.0
 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2007

Roadway Data

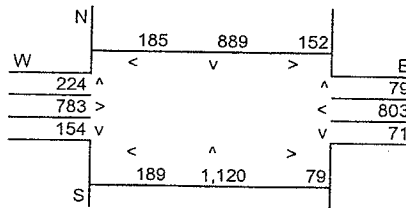
Intersection: Glen Oaks Blvd./Tuxford St.
 Analysis Condition: Future w. Phase I Plus Mitigation Traffic Volumes

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway:	Glen Oaks Blvd.	4	15	15
East-West Roadway:	Tuxford Street	4	15	15

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	2,234	N-S Road:	2,649
E-W Road:	1,902	E-W Road:	2,338

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	Reference CO Concentrations			Traffic Volume	Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,234	6.97	1.09	0.84	0.59
East-West Road	2.6	2.2	1.7	1,902	6.97	0.34	0.29	0.23
P.M. Peak Traffic Hour								
North-South Road	7.0	5.4	3.8	2,649	6.97	1.29	1.00	0.70
East-West Road	2.6	2.2	1.7	2,338	6.97	0.42	0.36	0.28

¹ Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).
² Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration²

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration²

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	7.4	7.7	4.6
50 Feet from Roadway Edge	7.1	7.4	4.3
100 Feet from Roadway Edge	6.8	7.0	4.1

² Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).



SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: Bradley Landfill Expansion

Background Information

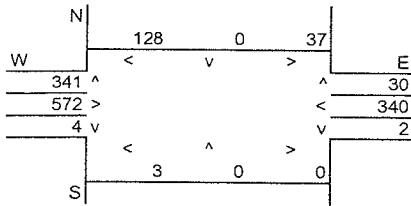
Nearest Air Monitoring Station measuring CO: Burbank- West Palm Avenue
 Background 1-hour CO Concentration (ppm): 6.0
 Background 8-hour CO Concentration (ppm): 3.4
 Persistence Factor: 0.7
 Analysis Year: 2007

Roadway Data

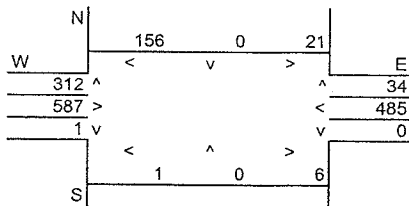
Intersection: Bradley Ave./Penrose St.
 Analysis Condition: Future w. Phase I Construction Traffic Volumes

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway: Bradley Avenue	At Grade	2	20	20
East-West Roadway: Penrose Street	At Grade	4	20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	536	N-S Road:	523
E-W Road:	1,388	E-W Road:	1,542

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	Reference CO Concentrations			Traffic Volume	Emission Factors ²	Estimated CO Concentrations		
	A ₁ 25 Feet	A ₂ 50 Feet	A ₃ 100 Feet			B	C	25 Feet
A.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	536	5.98	0.09	0.07	0.05
East-West Road	7.0	5.4	3.8	1,388	5.98	0.58	0.45	0.32
P.M. Peak Traffic Hour								
North-South Road	2.7	2.2	1.7	523	5.98	0.08	0.07	0.05
East-West Road	7.0	5.4	3.8	1,542	5.98	0.65	0.50	0.35

¹ Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

² Emission factors from EMFAC2002 (2003).

Total Roadway CO Concentrations

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration²

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration²

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
25 Feet from Roadway Edge	6.7	6.7	3.9
50 Feet from Roadway Edge	6.5	6.6	3.8
100 Feet from Roadway Edge	6.4	6.4	3.7

² Methodology from Bay Area Air Quality Management District BAAQMD CEQA Guidelines (1996).

