

**APPENDIX B**

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**Air Quality Assessment Data**

# BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

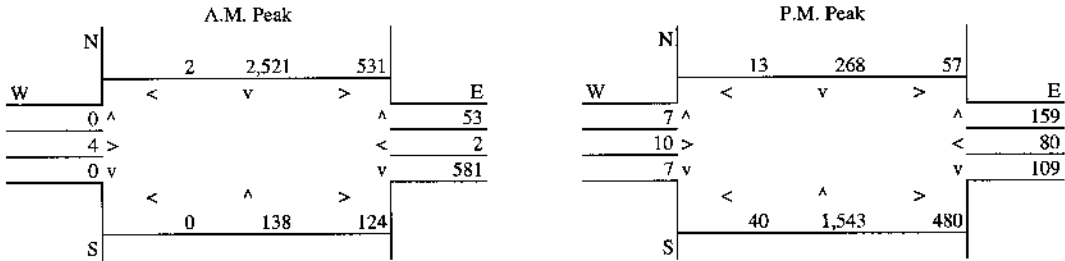
**Project Title:** Mountaingate  
**Intersection:** Sepulveda & Skirball  
**Analysis Condition:** Existing Traffic Volumes  
**Nearest Air Monitoring Station measuring CO:** West LA  
**Background 1-hour CO Concentration (ppm):** 7.9  
**Background 8-hour CO Concentration (ppm):** 4.2  
**Persistence Factor:** 0.7  
**Analysis Year:** 2003

	Roadway Type	No. of Lanes	Average Cruise Speed	
			A.M.	P.M.
North-South Roadway: Sepulveda Boulevard	At Grade	4	10	25
East-West Roadway: Skirball Center Drive	At Grade	4	10	20

## EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

Year	Average Speed (miles per hour)									
	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

## PEAK HOUR TURNING VOLUMES



## Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,364	N-S Road	2,447
E-W Road	1,295	E-W Road	895

## ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations			*	Traffic Volume	*	Emission Factor	÷	
	50 Feet	100 Feet	300 Feet						
<b>A.M. Peak Hour</b>									
N-S Road	5.4	3.8	1.6	*	3,364	*	16.86	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,295	*	16.86	÷	100,000
<b>P.M. Peak Hour</b>									
N-S Road	5.4	3.8	1.6	*	2,447	*	6.98	÷	100,000
E-W Road	2.2	1.7	1.1	*	895	*	8.63	÷	100,000

## TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	11.4	9.0	6.7
100 Feet from Roadway Edge	10.4	8.7	6.0
300 Feet from Roadway Edge	9.0	8.3	5.0

## BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

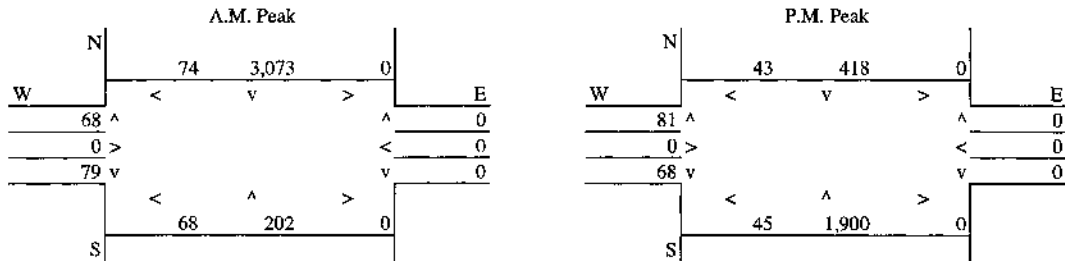
Project Title: Mountaingate  
 Intersection: Sepulveda & Mountaingate  
 Analysis Condition: Existing Traffic Volumes  
 Nearest Air Monitoring Station measuring CO: West LA  
 Background 1-hour CO Concentration (ppm): 7.9  
 Background 8-hour CO Concentration (ppm): 4.2  
 Persistence Factor: 0.7  
 Analysis Year: 2003

	Roadway Type	No. of Lanes	Average Cruise Speed	
			A.M.	P.M.
North-South Roadway: Sepulveda Boulevard	At Grade	4	10	25
East-West Roadway: Mountaingate Drive	At Grade	2	10	20

### EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

Year	Average Speed (miles per hour)									
	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

### PEAK HOUR TURNING VOLUMES



### Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,422	N-S Road	2,442
E-W Road	289	E-W Road	237

### ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations			*	Traffic Volume	*	Emission Factor	÷	100,000
	50 Feet	100 Feet	300 Feet						
<b>A.M. Peak Hour</b>									
N-S Road	5.4	3.8	1.6	*	3,422	*	16.86	÷	100,000
E-W Road	2.2	1.7	1.0	*	289	*	16.86	÷	100,000
<b>P.M. Peak Hour</b>									
N-S Road	5.4	3.8	1.6	*	2,442	*	6.98	÷	100,000
E-W Road	2.2	1.7	1.0	*	237	*	8.63	÷	100,000

### TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	11.1	8.9	6.5
100 Feet from Roadway Edge	10.2	8.6	5.8
300 Feet from Roadway Edge	8.9	8.2	4.9

## BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

Project Title: Mountaingate  
 Intersection: Sepulveda & Skirball  
 Analysis Condition: Future Traffic Volumes with Project  
 Nearest Air Monitoring Station measuring CO: West LA  
 Background 1-hour CO Concentration (ppm): 6.3  
 Background 8-hour CO Concentration (ppm): 3.4  
 Persistence Factor: 0.7  
 Analysis Year: 2005

	Roadway Type	No. of Lanes	Average Cruise Speed	
			A.M.	P.M.
North-South Roadway: Sepulveda Boulevard	At Grade	4	10	20
East-West Roadway: Skirball Center Drive	At Grade	4	10	20

### EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

Year	Average Speed (miles per hour)									
	10	15	20	25	30	35	40	45	50	55
1998	24.84	16.74	12.71	10.30	8.67	7.50	6.65	6.07	5.78	5.88
1999	22.93	15.46	11.73	9.50	8.00	6.93	6.14	5.61	5.35	5.46
2000	21.02	14.17	10.75	8.70	7.33	6.35	5.63	5.15	4.92	5.03
2001	19.63	13.24	10.04	8.13	6.85	5.93	5.27	4.82	4.62	4.73
2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
2003	16.86	11.37	8.63	6.98	5.88	5.10	4.54	4.17	4.01	4.14
2004	15.47	10.44	7.92	6.40	5.39	4.69	4.17	3.85	3.71	3.84
2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

### PEAK HOUR TURNING VOLUMES

A.M. Peak				P.M. Peak			
N	2	2,787	808	N	14	318	63
W	<	v	>	W	<	v	>
	0 ^		56		8 ^		176
	4 >		2		11 >		88
	0 v		772		8 v		292
	<	^	>		<	^	>
S	0	171	200	S	40	1,716	581

### Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,930	N-S Road	2,955
E-W Road	1,842	E-W Road	1,211

### ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations			Traffic Volume	Emission Factor				
	50 Feet	100 Feet	300 Feet						
A.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	3,930	*	14.08	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,842	*	14.08	÷	100,000
P.M. Peak Hour									
N-S Road	5.4	3.8	1.6	*	2,955	*	7.21	÷	100,000
E-W Road	2.2	1.7	1.1	*	1,211	*	7.21	÷	100,000

### TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	9.9	7.6	5.9
100 Feet from Roadway Edge	8.8	7.3	5.2
300 Feet from Roadway Edge	7.5	6.7	4.2

## BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS

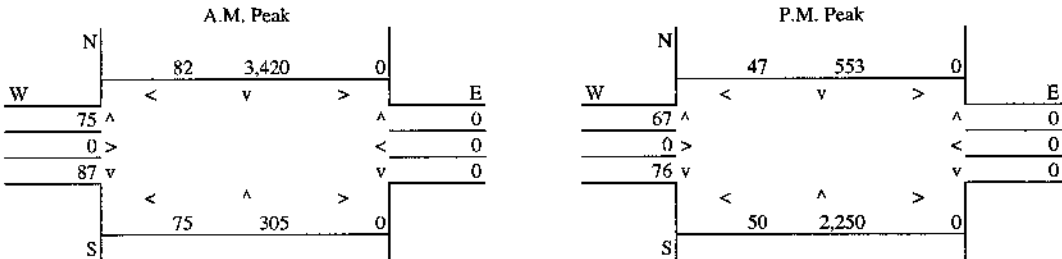
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 Background 8-hour CO Concentration (ppm): 3.4  
 Persistence Factor: 0.7  
 Analysis Year: 2005

	Roadway Type	No. of Lanes	Average Cruise Speed	
			A.M.	P.M.
North-South Roadway: Sepulveda Boulevard	At Grade	4	10	20
East-West Roadway: Mountaingate Drive	At Grade	2	10	20

### EMFAC7G COMPOSITE EMISSION FACTORS FOR CO

Year	Average Speed (miles per hour)									
	10	15	20	25	30	35	40	45	50	55
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2002	18.24	12.31	9.33	7.55	6.36	5.52	4.90	4.50	4.32	4.43
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2005	14.08	9.51	7.21	5.83	4.91	4.27	3.81	3.52	3.41	3.54
2010	10.78	7.30	5.52	4.46	3.77	3.28	2.95	2.75	2.69	2.83

### PEAK HOUR TURNING VOLUMES



### Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,887	N-S Road	2,929
E-W Road	319	E-W Road	240

### ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations			*	Traffic Volume	*	Emission Factor	÷	100,000
	50 Feet	100 Feet	300 Feet						
<b>A.M. Peak Hour</b>									
N-S Road	5.4	3.8	1.6	*	3,887	*	14.08	÷	100,000
E-W Road	2.2	1.7	1.0	*	319	*	14.08	÷	100,000
<b>P.M. Peak Hour</b>									
N-S Road	5.4	3.8	1.6	*	2,929	*	7.21	÷	100,000
E-W Road	2.2	1.7	1.0	*	240	*	7.21	÷	100,000

### TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
50 Feet from Roadway Edge	9.4	7.5	5.5
100 Feet from Roadway Edge	8.5	7.1	4.9
300 Feet from Roadway Edge	7.2	6.7	4.0

**Table: 4**  
**SUMMARY OF ESTIMATED DAILY OPERATION-RELATED EMISSIONS**

Project Name: Mountaingate

Land Use	Emissions in Pounds per Day					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	
Single-family	Vehicular Sources	12.5	3.4	3.7	0.2	0.1
	Stationary Area Sources	0.3	0.5	0.5	0.0	0.0
	Subtotals	12.8	3.9	4.2	0.2	0.1
0						
Project Totals	Vehicular Sources	12.5	3.4	3.7	0.2	0.1
	Stationary Area Sources	0.3	0.5	0.5	0.0	0.0
<b>TOTALS</b>		12.8	3.9	4.2	0.2	0.1
SCAQMD Thresholds (lbs/day)		550.0	55.0	55.0	150.0	150.0
Project's Significance (Yes or No)		NO	NO	NO	NO	NO

**Table: 5**  
**EMISSIONS FROM ON-ROAD VEHICLE TRAVEL**

**Project Name:** Mountaingate

Analysis Year:   
 EMFAC7 Model: EMFAC7G  
 Project County Location:  
 Los Angeles:   
 Orange:   
 Riverside:   
 San Bernardino:   
 Temperature:  
 Winter (CO):   
 Summer (VOC):   
 Summer (NO<sub>x</sub>):   
 URBEMIS Analysis Methodology:  
 Updated:   
 Entrained Roadway Dust:  
 Calculate:

Rcf No.	Land Use	Res/ Non-Res	Units/ 1000 SF	ADT Rates	NOV Rates	Trips per Unit	ADT	% Pass-By	% Diverted	% Internal	New Trips	Res. NOV	% Work Trips	% Truck Trips
34	Single-family	R	29	10.65	3.00	Unit	309	0%	0%	0%	309	87	0.0%	0.4%
0	0			0	0.00	0	0	0%	0%	0%	0			
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Trip Types	Residential			Non-Residential			
	Home to Work	Home to Shop	Home to Other	Work	Non-Work	Pass-By	Diverted
Trip Length (miles)	11.50	4.87	6.02	10.30	5.50	0.01	0.50
Trip Speeds	35.0	40.0	40.0	35.0	35.0	10.0	35.0
Percent Trip	20.0%	37.0%	43.0%				

Vehicle Fleetmix	% Type	Catalyst	Non-Cat	Diesel
<b>Passenger Vehicles</b>				
Automobiles	83.3%	98.7%	1.0%	0.3%
Light-Duty Trucks	11.1%	99.7%	0.0%	0.4%
Urban Buses	2.2%	-	-	100.0%
Motorcycles	3.3%	-	100.0%	-
<b>Trucks</b>				
Medium-Duty Trucks	30.0%	100.0%	0.1%	-
Light Heavy-Duty Trucks	10.0%	44.3%	5.8%	50.0%
Medium Heavy-Duty Trucks	10.0%	40.9%	9.2%	50.0%
Heavy Heavy-Duty Trucks	50.0%	-	-	100.0%

Project Vehicular Emissions in Pounds per Day	Vehicle Miles	Motor Vehicle Emissions					Entrained Roadway PM <sub>10</sub>
		CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	
Single-family 0	2,067	12.5	3.4	3.7	0.2	0.1	0.0
<b>TOTALS</b>	<b>2,067</b>	<b>12.5</b>	<b>3.4</b>	<b>3.7</b>	<b>0.2</b>	<b>0.1</b>	<b>0.0</b>

**Table: 6**  
**EMISSIONS FROM STATIONARY AREA SOURCES**  
 (SCAQMD CEQA Air Quality Handbook Tables A9-11 and A9-12)

Project Name: **Mountaingate**

Ref No.		Code	Units/SF	Units/Bldgs.	cf/Month	Water/Space Heating Emissions in Pounds/Day					Landscape Maint. Emissions in Pounds/Day					Consumer Prod. VOC
						CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	
34	Single-family	1	29	29	193,285	0.1	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.5
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	<b>TOTALS</b>				193,285	0.1	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.5

**Conversion Factors**

Land Use Type	Code	Natural Gas Consumption Conversion Factors	
			Usage Factor
Residential			
Single Family	1	Cubic Feet/Unit/Month	6,665.0
Multi-Family (<5)	2	Cubic Feet/Unit/Month	4,105.0
Multi-Family (5+)	3	Cubic Feet/Unit/Month	3,918.0
Food Store	4	Cubic Feet/Square Foot/Month	2.9
Restaurant	5	Cubic Feet/Square Foot/Month	2.9
Hospitals	6	Cubic Feet/Square Foot/Month	4.8
Retail	7	Cubic Feet/Square Foot/Month	2.9
College/University	8	Cubic Feet/Square Foot/Month	2.0
High School	9	Cubic Feet/Square Foot/Month	2.0
Elementary School	10	Cubic Feet/Square Foot/Month	2.0
Office	11	Cubic Feet/Square Foot/Month	2.0
Hotel/Motel	12	Cubic Feet/Square Foot/Month	4.8
Warehouse	13	Cubic Feet/Square Foot/Month	2.0
Miscellaneous	14	Cubic Feet/Customer/Month	241,611.0

**Emission Factors for Each Criteria Pollutant from Space and Water Heating, Landscape Maintenance, and Consumer Products**

Emission Factors	Water/Space Heating Emission Factors					Landscape Maint. Emission Factors					Consumer Prod. VOC
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	
Residential Uses	20.0	5.3	80.0	0.0	0.2	0.00576	0.00054	0.00014	0.0	0.00001	0.0171
Nonresidential Uses	20.0	5.3	120.0	0.0	0.2	0.0276	0.0315	0.005	0.0	0.00037	0.0