

APPENDIX D

Air Quality Data

Rocklin Crossings GHG Summary															
URBEMIS Output Summary			CO2 Estimates			Conversion Factors			Total CO2 Emissions						
Construction Emissions															
2008			563.92 tons/yr			0.907 metric ton/english ton			512 Metric tons/year						
2009			232.91 tons/yr			0.907 metric ton/english ton			211 Metric tons/year						
									723 Metric tons						
Area-Source Emissions															
Operational Year 2009			1151.33 tons/yr			0.907 metric ton/english ton			1,044 Metric tons/year						
Mobile-Source Emissions															
Operational Year 2009															
Employee Commute			2092.14 tons/yr			0.907 metric ton/english ton			1,898 Metric tons/year						
Vendor Trips			531.32 tons/yr			0.907 metric ton/english ton			482 Metric tons/year						
Shopping Trips			12773.04 tons/yr			0.907 metric ton/english ton			11,588 Metric tons/year						
Total Mobile-Source			15396.50 tons/yr			0.907 metric ton/english ton			13,967 Metric tons/year						
									*Assumes 1600 one-way employee trips/day						
									*Assumes 109 total truck trips (84 serving major tenants, +30% serving other tenants) Bollard 2007						
									*= Total vehicle emissions - employee - vendor trip emissions						
									*Assumes 18,788 total trips/day (accounting for pass-by trips) LSA 2007						
Total Direct Operational Emissions									15,012 Metric tons/year						
Indirect Emissions from Energy Consumption															
KWh/du/yea		KWh/ksf/		# ksf				Emission				Emission		Total CO2e	
r		year		Commercial		Total KWh		MWh		Region		Factor (lb		Factor (lb	
												CO2/MWh)		N2O/MWh)	
												GWP		GWP	
														Tons/year)	
7000		0		16,750		543.5		9,103,625		9,104		CALI		296	
														3,327	
Sources:															
California Energy Commission [CEC] 2000. California Energy Demand Staff Report P200-00-002															
California Climate Action Registry [CCAR] General Reporting Protocol v 2.2 March 2007															
TOTAL "NEW" OPERATIONAL EMISSIONS									6,752 Metric tons GHG/year						
TOTAL OPERATIONAL GHG EMISSIONS									18,339 Metric tons GHG/year						

Urbemis 2007 Version 9.2.2

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\phillipsh\Application Data\Urbemis\Version9a\Projects\Rocklin Crossings.urb9

Project Name: Rocklin Crossings

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>CO2</u>
2008 TOTALS (tons/year unmitigated)	563.92

2009 TOTALS (tons/year unmitigated)	232.91
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AREA SOURCE EMISSION ESTIMATES

	<u>CO2</u>
TOTALS (tons/year, unmitigated)	1,151.33

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>CO2</u>
TOTALS (tons/year, unmitigated)	15,396.50

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>CO2</u>
TOTALS (tons/year, unmitigated)	16,547.83

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	<u>CO2</u>
2008	563.92
Fine Grading 03/25/2008-07/27/2008	139.52
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	133.83
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	5.68
Asphalt 07/28/2008-03/28/2009	77.90
Paving Off-Gas	0.00
Paving Off Road Diesel	63.95
Paving On Road Diesel	2.40
Paving Worker Trips	11.54
Building 07/28/2008-03/28/2009	342.02
Building Off Road Diesel	91.60
Building Vendor Trips	49.63
Building Worker Trips	200.79
Coating 07/28/2008-03/28/2009	4.48
Architectural Coating	0.00
Coating Worker Trips	4.48

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2009	232.91
Asphalt 07/28/2008-03/28/2009	42.75
Paving Off-Gas	0.00
Paving Off Road Diesel	35.09
Paving On Road Diesel	1.32
Paving Worker Trips	6.34
Building 07/28/2008-03/28/2009	187.71
Building Off Road Diesel	50.26
Building Vendor Trips	27.23
Building Worker Trips	110.22
Coating 07/28/2008-03/28/2009	2.46
Architectural Coating	0.00
Coating Worker Trips	2.46

Phase Assumptions

Phase: Fine Grading 3/25/2008 - 7/27/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 24.96

Maximum Daily Acreage Disturbed: 6.24

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Phase: Paving 7/28/2008 - 3/28/2009 - Default Paving Description

Acres to be Paved: 6.24

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 7/28/2008 - 3/28/2009 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 7/28/2008 - 3/28/2009 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>CO2</u>
Natural Gas	1,150.59
Hearth	0.00
Landscape	0.74
Consumer Products	
Architectural Coatings	
TOTALS (tons/year, unmitigated)	1,151.33

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>CO2</u>
Free-standing discount superstore	8,043.17
Regnl shop. center	4,760.87
Home improvement superstore	2,592.46
TOTALS (tons/year, unmitigated)	15,396.50

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Summary of Land Uses						
Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Free-standing discount superstore		41.00	1000 sq ft	231.35	9,485.35	45,616.44
Regnl shop. center		33.41	1000 sq ft	171.11	5,716.79	26,985.69
Home improvement superstore		25.43	1000 sq ft	141.04	3,586.65	14,623.62
					18,788.79	87,225.75

Vehicle Fleet Mix					
Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.0		2.0	97.6	0.4
Light Truck < 3750 lbs	10.9		3.7	90.8	5.5
Light Truck 3751-5750 lbs	21.7		0.9	98.6	0.5
Med Truck 5751-8500 lbs	9.5		1.1	98.9	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6		0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6		0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0		0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9		0.0	0.0	100.0
Other Bus	0.1		0.0	0.0	100.0
Urban Bus	0.1		0.0	0.0	100.0
Motorcycle	3.5		77.1	22.9	0.0
School Bus	0.1		0.0	0.0	100.0
Motor Home	1.0		10.0	80.0	10.0

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount superstore				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0

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Combined Winter Emissions Reports (Pounds/Day)

File Name:

Project Name: Rocklin Crossings

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2008 TOTALS (lbs/day unmitigated)	75.24	42.47	65.99	0.05	124.81	3.03	126.84	26.07	2.78	27.94	7,511.53
2009 TOTALS (lbs/day unmitigated)	74.73	40.22	61.89	0.05	0.22	2.89	3.11	0.08	2.65	2.73	7,513.38

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	3.56	5.25	4.41	0.00	0.01	0.01	6,304.60

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	192.52	306.06	2,191.97	1.41	280.68	54.21	141,270.97

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	196.08	311.31	2,196.38	1.41	280.69	54.22	147,575.57

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 3/25/2008-7/25/2008	4.67	37.81	20.33	0.00	<u>124.81</u>	2.03	<u>126.84</u>	<u>26.07</u>	1.87	<u>27.94</u>	3,135.19
Active Days: 89											
Fine Grading 03/25/2008-07/27/2008	4.67	37.81	20.33	0.00	124.81	2.03	126.84	26.07	1.87	27.94	3,135.19
Fine Grading Dust	0.00	0.00	0.00	0.00	124.80	0.00	124.80	26.06	0.00	26.06	0.00
Fine Grading Off Road Diesel	4.62	37.73	18.93	0.00	0.00	2.03	2.03	0.00	1.87	1.87	3,007.48
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.39	0.00	0.01	0.00	0.01	0.00	0.00	0.00	127.71
Time Slice 7/28/2008-12/31/2008	<u>75.24</u>	<u>42.47</u>	<u>65.99</u>	<u>0.05</u>	0.22	<u>3.03</u>	3.26	0.08	<u>2.78</u>	2.86	<u>7,511.53</u>
Active Days: 113											
Asphalt 07/28/2008-03/28/2009	2.97	16.87	10.82	0.00	0.01	1.42	1.43	0.00	1.30	1.31	1,378.81
Paving Off-Gas	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.78	16.39	8.47	0.00	0.00	1.40	1.40	0.00	1.29	1.29	1,131.92
Paving On Road Diesel	0.02	0.36	0.12	0.00	0.00	0.01	0.02	0.00	0.01	0.01	42.56
Paving Worker Trips	0.07	0.12	2.23	0.00	0.01	0.00	0.01	0.00	0.00	0.01	204.33
Building 07/28/2008-03/28/2009	5.72	25.55	54.30	0.04	0.21	1.61	1.82	0.07	1.48	1.55	6,053.39
Building Off Road Diesel	4.07	18.22	11.80	0.00	0.00	1.33	1.33	0.00	1.22	1.22	1,621.20
Building Vendor Trips	0.37	5.18	3.71	0.01	0.03	0.20	0.24	0.01	0.19	0.20	878.42
Building Worker Trips	1.27	2.15	38.79	0.03	0.17	0.08	0.25	0.06	0.07	0.13	3,553.78
Coating 07/28/2008-03/28/2009	66.56	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.33
Architectural Coating	66.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.33

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Time Slice 1/1/2009-3/27/2009	<u>74.73</u>	<u>40.22</u>	<u>61.89</u>	<u>0.05</u>	<u>0.22</u>	<u>2.89</u>	<u>3.11</u>	<u>0.08</u>	<u>2.65</u>	<u>2.73</u>	<u>7,513.38</u>
Active Days: 62											
Asphalt 07/28/2008-03/28/2009	2.80	16.06	10.52	0.00	0.01	1.35	1.36	0.00	1.24	1.24	1,378.90
Paving Off-Gas	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.62	15.62	8.36	0.00	0.00	1.33	1.33	0.00	1.22	1.22	1,131.92
Paving On Road Diesel	0.02	0.33	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	42.56
Paving Worker Trips	0.07	0.11	2.05	0.00	0.01	0.00	0.01	0.00	0.00	0.01	204.43
Building 07/28/2008-03/28/2009	5.37	24.12	50.58	0.04	0.21	1.54	1.75	0.07	1.41	1.48	6,055.11
Building Off Road Diesel	3.87	17.35	11.50	0.00	0.00	1.28	1.28	0.00	1.17	1.17	1,621.20
Building Vendor Trips	0.35	4.83	3.46	0.01	0.03	0.18	0.22	0.01	0.17	0.18	878.43
Building Worker Trips	1.15	1.94	35.62	0.03	0.17	0.08	0.26	0.06	0.07	0.13	3,555.48
Coating 07/28/2008-03/28/2009	66.55	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.36
Architectural Coating	66.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.36

Phase Assumptions

Phase: Fine Grading 3/25/2008 - 7/27/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 24.96

Maximum Daily Acreage Disturbed: 6.24

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Phase: Paving 7/28/2008 - 3/28/2009 - Default Paving Description

Acres to be Paved: 6.24

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 7/28/2008 - 3/28/2009 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 7/28/2008 - 3/28/2009 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.38	5.25	4.41	0.00	0.01	0.01	6,304.60
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	3.18						
TOTALS (lbs/day, unmitigated)	3.56	5.25	4.41	0.00	0.01	0.01	6,304.60

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Free-standing discount superstore	99.57	158.29	1,133.65	0.73	145.16	28.04	73,063.16
Regnl shop. center	56.19	89.33	639.80	0.41	81.93	15.82	41,234.51
Home improvement superstore	36.76	58.44	418.52	0.27	53.59	10.35	26,973.30
TOTALS (lbs/day, unmitigated)	192.52	306.06	2,191.97	1.41	280.68	54.21	141,270.97

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Summary of Land Uses						
Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Free-standing discount superstore		49.21	1000 sq ft	231.35	11,384.73	84,167.33
Regnl shop. center		37.55	1000 sq ft	171.11	6,425.18	47,501.36
Home improvement superstore		29.80	1000 sq ft	141.04	4,202.99	31,072.72
					22,012.90	162,741.41

Vehicle Fleet Mix					
Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.0		2.0	97.6	0.4
Light Truck < 3750 lbs	10.9		3.7	90.8	5.5
Light Truck 3751-5750 lbs	21.7		0.9	98.6	0.5
Med Truck 5751-8500 lbs	9.5		1.1	98.9	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6		0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6		0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0		0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9		0.0	0.0	100.0
Other Bus	0.1		0.0	0.0	100.0
Urban Bus	0.1		0.0	0.0	100.0
Motorcycle	3.5		77.1	22.9	0.0
School Bus	0.1		0.0	0.0	100.0
Motor Home	1.0		10.0	80.0	10.0

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount superstore				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0

Urbemis 2007 Version 9.2.2

Combined Summer Emissions Reports (Pounds/Day)

File Name:

Project Name: Rocklin Crossings

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2008 TOTALS (lbs/day unmitigated)	75.24	42.47	65.99	0.05	124.81	3.03	126.84	26.07	2.78	27.94	7,511.53
2009 TOTALS (lbs/day unmitigated)	74.73	40.22	61.89	0.05	0.22	2.89	3.11	0.08	2.65	2.73	7,513.38

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	3.95	5.31	9.22	0.00	0.02	0.02	6,312.84

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	151.56	211.36	1,916.73	1.61	280.68	54.21	162,718.64

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	155.51	216.67	1,925.95	1.61	280.70	54.23	169,031.48

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 3/25/2008-7/25/2008	4.67	37.81	20.33	0.00	<u>124.81</u>	2.03	<u>126.84</u>	<u>26.07</u>	1.87	<u>27.94</u>	3,135.19
Active Days: 89											
Fine Grading 03/25/2008-07/27/2008	4.67	37.81	20.33	0.00	124.81	2.03	126.84	26.07	1.87	27.94	3,135.19
Fine Grading Dust	0.00	0.00	0.00	0.00	124.80	0.00	124.80	26.06	0.00	26.06	0.00
Fine Grading Off Road Diesel	4.62	37.73	18.93	0.00	0.00	2.03	2.03	0.00	1.87	1.87	3,007.48
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.39	0.00	0.01	0.00	0.01	0.00	0.00	0.00	127.71
Time Slice 7/28/2008-12/31/2008	<u>75.24</u>	<u>42.47</u>	<u>65.99</u>	<u>0.05</u>	0.22	<u>3.03</u>	3.26	0.08	<u>2.78</u>	2.86	<u>7,511.53</u>
Active Days: 113											
Asphalt 07/28/2008-03/28/2009	2.97	16.87	10.82	0.00	0.01	1.42	1.43	0.00	1.30	1.31	1,378.81
Paving Off-Gas	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.78	16.39	8.47	0.00	0.00	1.40	1.40	0.00	1.29	1.29	1,131.92
Paving On Road Diesel	0.02	0.36	0.12	0.00	0.00	0.01	0.02	0.00	0.01	0.01	42.56
Paving Worker Trips	0.07	0.12	2.23	0.00	0.01	0.00	0.01	0.00	0.00	0.01	204.33
Building 07/28/2008-03/28/2009	5.72	25.55	54.30	0.04	0.21	1.61	1.82	0.07	1.48	1.55	6,053.39
Building Off Road Diesel	4.07	18.22	11.80	0.00	0.00	1.33	1.33	0.00	1.22	1.22	1,621.20
Building Vendor Trips	0.37	5.18	3.71	0.01	0.03	0.20	0.24	0.01	0.19	0.20	878.42
Building Worker Trips	1.27	2.15	38.79	0.03	0.17	0.08	0.25	0.06	0.07	0.13	3,553.78
Coating 07/28/2008-03/28/2009	66.56	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.33
Architectural Coating	66.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.33

10/2/2007 1:47:22 PM

Time Slice 1/1/2009-3/27/2009	<u>74.73</u>	<u>40.22</u>	<u>61.89</u>	<u>0.05</u>	<u>0.22</u>	<u>2.89</u>	<u>3.11</u>	<u>0.08</u>	<u>2.65</u>	<u>2.73</u>	<u>7,513.38</u>
Active Days: 62											
Asphalt 07/28/2008-03/28/2009	2.80	16.06	10.52	0.00	0.01	1.35	1.36	0.00	1.24	1.24	1,378.90
Paving Off-Gas	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.62	15.62	8.36	0.00	0.00	1.33	1.33	0.00	1.22	1.22	1,131.92
Paving On Road Diesel	0.02	0.33	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	42.56
Paving Worker Trips	0.07	0.11	2.05	0.00	0.01	0.00	0.01	0.00	0.00	0.01	204.43
Building 07/28/2008-03/28/2009	5.37	24.12	50.58	0.04	0.21	1.54	1.75	0.07	1.41	1.48	6,055.11
Building Off Road Diesel	3.87	17.35	11.50	0.00	0.00	1.28	1.28	0.00	1.17	1.17	1,621.20
Building Vendor Trips	0.35	4.83	3.46	0.01	0.03	0.18	0.22	0.01	0.17	0.18	878.43
Building Worker Trips	1.15	1.94	35.62	0.03	0.17	0.08	0.26	0.06	0.07	0.13	3,555.48
Coating 07/28/2008-03/28/2009	66.55	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.36
Architectural Coating	66.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.36

Phase Assumptions

Phase: Fine Grading 3/25/2008 - 7/27/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 24.96

Maximum Daily Acreage Disturbed: 6.24

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

10/2/2007 1:47:22 PM

Phase: Paving 7/28/2008 - 3/28/2009 - Default Paving Description

Acres to be Paved: 6.24

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 7/28/2008 - 3/28/2009 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 7/28/2008 - 3/28/2009 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

10/2/2007 1:47:22 PM

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.38	5.25	4.41	0.00	0.01	0.01	6,304.60
Hearth - No Summer Emissions							
Landscape	0.39	0.06	4.81	0.00	0.01	0.01	8.24
Consumer Products	0.00						
Architectural Coatings	3.18						
TOTALS (lbs/day, unmitigated)	3.95	5.31	9.22	0.00	0.02	0.02	6,312.84

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Free-standing discount superstore	77.92	109.31	991.30	0.83	145.16	28.04	84,155.56
Regnl shop. center	44.35	61.69	559.46	0.47	81.93	15.82	47,494.71
Home improvement superstore	29.29	40.36	365.97	0.31	53.59	10.35	31,068.37
TOTALS (lbs/day, unmitigated)	151.56	211.36	1,916.73	1.61	280.68	54.21	162,718.64

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Summary of Land Uses						
Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Free-standing discount superstore		49.21	1000 sq ft	231.35	11,384.73	84,167.33
Regnl shop. center		37.55	1000 sq ft	171.11	6,425.18	47,501.36
Home improvement superstore		29.80	1000 sq ft	141.04	4,202.99	31,072.72
					22,012.90	162,741.41

Vehicle Fleet Mix				
Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.0	2.0	97.6	0.4
Light Truck < 3750 lbs	10.9	3.7	90.8	5.5
Light Truck 3751-5750 lbs	21.7	0.9	98.6	0.5
Med Truck 5751-8500 lbs	9.5	1.1	98.9	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	77.1	22.9	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	10.0	80.0	10.0

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount superstore				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0

Urbemis 2007 Version 9.2.2

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\phillipsh\Application Data\Urbemis\Version9a\Projects\Rocklin Crossings Vendors.urb9

Project Name: Rocklin Crossings Vendors

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	CO2
Rocklin Crossings Vendors	531.32
TOTALS (tons/year, unmitigated)	531.32

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Rocklin Crossings Vendors		109.00	1000 sq ft	1.00	109.00	805.84
					109.00	805.84

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	2.0	97.6	0.4

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Truck < 3750 lbs	0.0	3.7	90.8	5.5
Light Truck 3751-5750 lbs	0.0	0.9	98.6	0.5
Med Truck 5751-8500 lbs	0.0	1.1	98.9	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	36.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	64.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	100.0
Motorcycle	0.0	77.1	22.9	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	10.0	80.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Travel Conditions

Residential

Commercial

Home-Work

Home-Shop

Home-Other

Commute

Non-Work

Customer

Rocklin Crossings Vendors

2.0

1.0

97.0

Operational Changes to Defaults

Urbemis 2007 Version 9.2.2

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\phillipsh\Application Data\Urbemis\Version9a\Projects\Rocklin Crossings Employees.urb9

Project Name: Rocklin Crossings Employees

Project Location: Placer County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	CO2
Rocklin Crossings Employment	2,092.14
TOTALS (tons/year, unmitigated)	2,092.14

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Rocklin Crossings Employment		1,600.00	1000 sq ft	1.00	1,600.00	11,828.80
					1,600.00	11,828.80

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.8	1.8	97.7	0.5

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Truck < 3750 lbs	14.2	3.5	87.3	9.2
Light Truck 3751-5750 lbs	22.4	0.9	98.7	0.4
Med Truck 5751-8500 lbs	11.0	0.9	98.2	0.9
Lite-Heavy Truck 8501-10,000 lbs	2.6	0.0	69.2	30.8
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	1.2	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	5.5	70.9	29.1	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.3	0.0	84.6	15.4

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Travel Conditions

Residential

Commercial

Home-Work

Home-Shop

Home-Other

Commute

Non-Work

Customer

Rocklin Crossings Employment

2.0

1.0

97.0

Operational Changes to Defaults