

Appendix B

Air Quality Data



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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name:

Project Name: CSUCI Facilities Projects SEIR

Project Location: Ventura 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>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>
2009 TOTALS (lbs/day unmitigated)	35.65	314.09	301.13	0.31	765.84	14.41	780.25	160.04	13.26	173.30	35,636.42
2009 TOTALS (lbs/day mitigated)	35.65	314.09	301.13	0.31	433.44	14.41	447.86	90.62	13.26	103.88	35,636.42

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)							

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)							

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)							

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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>
Time Slice 6/8/2009-6/26/2009	21.82	252.13	103.62	0.19	765.72	10.85	776.57	160.00	9.98	169.98	29,229.02
Active Days: 15											
Fine Grading 06/08/2009-07/10/2009	21.82	252.13	103.62	0.19	765.72	10.85	776.57	160.00	9.98	169.98	29,229.02
Fine Grading Dust	0.00	0.00	0.00	0.00	765.00	0.00	765.00	159.76	0.00	159.76	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
Fine Grading On Road Diesel	9.94	150.89	51.89	0.19	0.70	5.88	6.59	0.23	5.41	5.64	20,130.04
Fine Grading Worker Trips	0.08	0.13	2.38	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.11
Time Slice 6/29/2009-7/3/2009	24.03	271.08	112.90	0.19	765.72	11.79	777.51	160.00	10.84	170.84	31,046.10
Active Days: 5											
Fine Grading 06/08/2009-07/10/2009	21.82	252.13	103.62	0.19	765.72	10.85	776.57	160.00	9.98	169.98	29,229.02
Fine Grading Dust	0.00	0.00	0.00	0.00	765.00	0.00	765.00	159.76	0.00	159.76	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
Fine Grading On Road Diesel	9.94	150.89	51.89	0.19	0.70	5.88	6.59	0.23	5.41	5.64	20,130.04
Fine Grading Worker Trips	0.08	0.13	2.38	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.11
Trenching 06/29/2009-07/06/2009	2.21	18.95	9.28	0.00	0.00	0.93	0.94	0.00	0.86	0.86	1,817.08
Trenching Off Road Diesel	2.18	18.90	8.32	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,714.64
Trenching Worker Trips	0.03	0.05	0.95	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.44

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Time Slice 7/6/2009-7/6/2009 Active Days: 1	<u>35.65</u>	<u>314.09</u>	132.53	0.22	<u>765.84</u>	<u>14.41</u>	<u>780.25</u>	<u>160.04</u>	<u>13.26</u>	<u>173.30</u>	<u>35,636.42</u>
Asphalt 07/06/2009-07/24/2009	11.61	43.01	19.63	0.03	0.11	2.63	2.74	0.04	2.42	2.45	4,590.32
Paving Off-Gas	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	1.50	22.81	7.85	0.03	0.11	0.89	1.00	0.03	0.82	0.85	3,043.45
Paving Worker Trips	0.04	0.07	1.19	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.06
Fine Grading 06/08/2009-07/10/2009	21.82	252.13	103.62	0.19	765.72	10.85	776.57	160.00	9.98	169.98	29,229.02
Fine Grading Dust	0.00	0.00	0.00	0.00	765.00	0.00	765.00	159.76	0.00	159.76	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
Fine Grading On Road Diesel	9.94	150.89	51.89	0.19	0.70	5.88	6.59	0.23	5.41	5.64	20,130.04
Fine Grading Worker Trips	0.08	0.13	2.38	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.11
Trenching 06/29/2009-07/06/2009	2.21	18.95	9.28	0.00	0.00	0.93	0.94	0.00	0.86	0.86	1,817.08
Trenching Off Road Diesel	2.18	18.90	8.32	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,714.64
Trenching Worker Trips	0.03	0.05	0.95	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.44

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Time Slice 7/7/2009-7/10/2009	33.43	295.14	123.25	0.22	765.83	13.48	779.31	160.04	12.40	172.44	33,819.34
Active Days: 4											
Asphalt 07/06/2009-07/24/2009	11.61	43.01	19.63	0.03	0.11	2.63	2.74	0.04	2.42	2.45	4,590.32
Paving Off-Gas	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	1.50	22.81	7.85	0.03	0.11	0.89	1.00	0.03	0.82	0.85	3,043.45
Paving Worker Trips	0.04	0.07	1.19	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.06
Fine Grading 06/08/2009-07/10/2009	21.82	252.13	103.62	0.19	765.72	10.85	776.57	160.00	9.98	169.98	29,229.02
Fine Grading Dust	0.00	0.00	0.00	0.00	765.00	0.00	765.00	159.76	0.00	159.76	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
Fine Grading On Road Diesel	9.94	150.89	51.89	0.19	0.70	5.88	6.59	0.23	5.41	5.64	20,130.04
Fine Grading Worker Trips	0.08	0.13	2.38	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.11
Time Slice 7/13/2009-7/17/2009	11.61	43.01	19.63	0.03	0.11	2.63	2.74	0.04	2.42	2.45	4,590.32
Active Days: 5											
Asphalt 07/06/2009-07/24/2009	11.61	43.01	19.63	0.03	0.11	2.63	2.74	0.04	2.42	2.45	4,590.32
Paving Off-Gas	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	1.50	22.81	7.85	0.03	0.11	0.89	1.00	0.03	0.82	0.85	3,043.45
Paving Worker Trips	0.04	0.07	1.19	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.06

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Time Slice 7/20/2009-7/24/2009	24.55	82.47	<u>301.13</u>	<u>0.31</u>	1.51	5.04	6.55	0.54	4.58	5.12	35,525.39
Active Days: 5											
Asphalt 07/06/2009-07/24/2009	11.61	43.01	19.63	0.03	0.11	2.63	2.74	0.04	2.42	2.45	4,590.32
Paving Off-Gas	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	1.50	22.81	7.85	0.03	0.11	0.89	1.00	0.03	0.82	0.85	3,043.45
Paving Worker Trips	0.04	0.07	1.19	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.06
Building 07/20/2009-08/07/2009	12.94	39.45	281.50	0.28	1.40	2.41	3.81	0.50	2.16	2.66	30,935.07
Building Off Road Diesel	4.37	24.71	14.63	0.00	0.00	1.81	1.81	0.00	1.67	1.67	2,259.28
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Worker Trips	8.57	14.74	266.86	0.28	1.40	0.60	2.00	0.50	0.49	1.00	28,675.79
Time Slice 7/27/2009-8/7/2009	12.94	39.45	281.50	0.28	1.40	2.41	3.81	0.50	2.16	2.66	30,935.07
Active Days: 10											
Building 07/20/2009-08/07/2009	12.94	39.45	281.50	0.28	1.40	2.41	3.81	0.50	2.16	2.66	30,935.07
Building Off Road Diesel	4.37	24.71	14.63	0.00	0.00	1.81	1.81	0.00	1.67	1.67	2,259.28
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Worker Trips	8.57	14.74	266.86	0.28	1.40	0.60	2.00	0.50	0.49	1.00	28,675.79

Phase Assumptions

Phase: Fine Grading 6/8/2009 - 7/10/2009 - Default Fine Site Grading Description

Total Acres Disturbed: 153

Maximum Daily Acreage Disturbed: 38.25

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 5000

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

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- 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
- 3 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 6/29/2009 - 7/6/2009 - Default Architectural Coating Description

Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 7/6/2009 - 7/24/2009 - Default Paving Description

Acres to be Paved: 38.25

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 7/20/2009 - 8/7/2009 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Construction Mitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	<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>
Time Slice 6/8/2009-6/26/2009 Active Days: 15	21.82	252.13	103.62	0.19	433.32	10.85	444.18	90.58	9.98	100.57	29,229.02
Fine Grading 06/08/2009- 07/10/2009	21.82	252.13	103.62	0.19	433.32	10.85	444.18	90.58	9.98	100.57	29,229.02
Fine Grading Dust	0.00	0.00	0.00	0.00	432.61	0.00	432.61	90.35	0.00	90.35	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
Fine Grading On Road Diesel	9.94	150.89	51.89	0.19	0.70	5.88	6.59	0.23	5.41	5.64	20,130.04
Fine Grading Worker Trips	0.08	0.13	2.38	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.11
Time Slice 6/29/2009-7/3/2009 Active Days: 5	24.03	271.08	112.90	0.19	433.33	11.79	445.12	90.58	10.84	101.43	31,046.10
Fine Grading 06/08/2009- 07/10/2009	21.82	252.13	103.62	0.19	433.32	10.85	444.18	90.58	9.98	100.57	29,229.02
Fine Grading Dust	0.00	0.00	0.00	0.00	432.61	0.00	432.61	90.35	0.00	90.35	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
Fine Grading On Road Diesel	9.94	150.89	51.89	0.19	0.70	5.88	6.59	0.23	5.41	5.64	20,130.04
Fine Grading Worker Trips	0.08	0.13	2.38	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.11
Trenching 06/29/2009-07/06/2009	2.21	18.95	9.28	0.00	0.00	0.93	0.94	0.00	0.86	0.86	1,817.08
Trenching Off Road Diesel	2.18	18.90	8.32	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,714.64
Trenching Worker Trips	0.03	0.05	0.95	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.44

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Time Slice 7/6/2009-7/6/2009 Active Days: 1	<u>35.65</u>	<u>314.09</u>	132.53	0.22	<u>433.44</u>	<u>14.41</u>	<u>447.86</u>	<u>90.62</u>	<u>13.26</u>	<u>103.88</u>	<u>35,636.42</u>
Asphalt 07/06/2009-07/24/2009	11.61	43.01	19.63	0.03	0.11	2.63	2.74	0.04	2.42	2.45	4,590.32
Paving Off-Gas	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	1.50	22.81	7.85	0.03	0.11	0.89	1.00	0.03	0.82	0.85	3,043.45
Paving Worker Trips	0.04	0.07	1.19	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.06
Fine Grading 06/08/2009-07/10/2009	21.82	252.13	103.62	0.19	433.32	10.85	444.18	90.58	9.98	100.57	29,229.02
Fine Grading Dust	0.00	0.00	0.00	0.00	432.61	0.00	432.61	90.35	0.00	90.35	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
Fine Grading On Road Diesel	9.94	150.89	51.89	0.19	0.70	5.88	6.59	0.23	5.41	5.64	20,130.04
Fine Grading Worker Trips	0.08	0.13	2.38	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.11
Trenching 06/29/2009-07/06/2009	2.21	18.95	9.28	0.00	0.00	0.93	0.94	0.00	0.86	0.86	1,817.08
Trenching Off Road Diesel	2.18	18.90	8.32	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,714.64
Trenching Worker Trips	0.03	0.05	0.95	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.44

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Time Slice 7/7/2009-7/10/2009	33.43	295.14	123.25	0.22	433.44	13.48	446.92	90.62	12.40	103.02	33,819.34
Active Days: 4											
Asphalt 07/06/2009-07/24/2009	11.61	43.01	19.63	0.03	0.11	2.63	2.74	0.04	2.42	2.45	4,590.32
Paving Off-Gas	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	1.50	22.81	7.85	0.03	0.11	0.89	1.00	0.03	0.82	0.85	3,043.45
Paving Worker Trips	0.04	0.07	1.19	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.06
Fine Grading 06/08/2009-07/10/2009	21.82	252.13	103.62	0.19	433.32	10.85	444.18	90.58	9.98	100.57	29,229.02
Fine Grading Dust	0.00	0.00	0.00	0.00	432.61	0.00	432.61	90.35	0.00	90.35	0.00
Fine Grading Off Road Diesel	11.80	101.10	49.35	0.00	0.00	4.97	4.97	0.00	4.57	4.57	8,842.87
Fine Grading On Road Diesel	9.94	150.89	51.89	0.19	0.70	5.88	6.59	0.23	5.41	5.64	20,130.04
Fine Grading Worker Trips	0.08	0.13	2.38	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.11
Time Slice 7/13/2009-7/17/2009	11.61	43.01	19.63	0.03	0.11	2.63	2.74	0.04	2.42	2.45	4,590.32
Active Days: 5											
Asphalt 07/06/2009-07/24/2009	11.61	43.01	19.63	0.03	0.11	2.63	2.74	0.04	2.42	2.45	4,590.32
Paving Off-Gas	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	1.50	22.81	7.85	0.03	0.11	0.89	1.00	0.03	0.82	0.85	3,043.45
Paving Worker Trips	0.04	0.07	1.19	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.06

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Time Slice 7/20/2009-7/24/2009 Active Days: 5	24.55	82.47	<u>301.13</u>	<u>0.31</u>	1.51	5.04	6.55	0.54	4.58	5.12	35,525.39
Asphalt 07/06/2009-07/24/2009	11.61	43.01	19.63	0.03	0.11	2.63	2.74	0.04	2.42	2.45	4,590.32
Paving Off-Gas	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	1.50	22.81	7.85	0.03	0.11	0.89	1.00	0.03	0.82	0.85	3,043.45
Paving Worker Trips	0.04	0.07	1.19	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.06
Building 07/20/2009-08/07/2009	12.94	39.45	281.50	0.28	1.40	2.41	3.81	0.50	2.16	2.66	30,935.07
Building Off Road Diesel	4.37	24.71	14.63	0.00	0.00	1.81	1.81	0.00	1.67	1.67	2,259.28
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Worker Trips	8.57	14.74	266.86	0.28	1.40	0.60	2.00	0.50	0.49	1.00	28,675.79
Time Slice 7/27/2009-8/7/2009 Active Days: 10	12.94	39.45	281.50	0.28	1.40	2.41	3.81	0.50	2.16	2.66	30,935.07
Building 07/20/2009-08/07/2009	12.94	39.45	281.50	0.28	1.40	2.41	3.81	0.50	2.16	2.66	30,935.07
Building Off Road Diesel	4.37	24.71	14.63	0.00	0.00	1.81	1.81	0.00	1.67	1.67	2,259.28
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Worker Trips	8.57	14.74	266.86	0.28	1.40	0.60	2.00	0.50	0.49	1.00	28,675.79

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 6/8/2009 - 7/10/2009 - Default Fine Site Grading Description

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%