

Attachment B

URBEMIS Full Modeling Report

(Clark run, 4.19.2010)



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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\James Clark\Application Data\Urbemis\Version9a\Projects\Napa34.urb924

Project Name: Napa 34 Commerical Center

Project Location: Napa County

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>
2010 TOTALS (lbs/day unmitigated)	8.39	52.97	31.37	0.01	112.64	3.24	115.87	23.53	2.98	26.50	5,080.69
2010 TOTALS (lbs/day mitigated)	8.39	52.97	31.37	0.01	112.64	3.24	115.87	23.53	2.98	26.50	5,080.69
2011 TOTALS (lbs/day unmitigated)	507.30	91.97	106.18	0.09	113.01	5.16	118.20	23.66	4.75	28.41	15,703.19
2011 TOTALS (lbs/day mitigated)	507.30	91.97	106.18	0.09	113.01	5.16	118.20	23.66	4.75	28.41	15,703.19

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)	3.24	1.74	4.52	0.00	0.01	0.01	2,048.06
TOTALS (lbs/day, mitigated)	3.24	1.74	4.52	0.00	0.01	0.01	2,048.06
Percent Reduction	0.00	0.00	0.00	NaN	0.00	0.00	0.00

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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)	26.05	24.39	264.31	0.21	39.06	7.48	22,146.21
TOTALS (lbs/day, mitigated)	26.05	24.39	264.31	0.21	39.06	7.48	22,146.21
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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)	29.29	26.13	268.83	0.21	39.07	7.49	24,194.27
TOTALS (lbs/day, mitigated)	29.29	26.13	268.83	0.21	39.07	7.49	24,194.27
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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 11/30/2010-12/27/2010	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Active Days: 20											
Fine Grading 11/30/2010-01/11/2011	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	4.16	33.67	17.48	0.00	0.00	1.79	1.79	0.00	1.65	1.65	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	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.09

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Time Slice 12/28/2010-12/31/2010	<u>8.39</u>	<u>52.87</u>	<u>31.37</u>	<u>0.01</u>	<u>112.64</u>	<u>3.24</u>	<u>115.87</u>	<u>23.53</u>	<u>2.98</u>	<u>26.50</u>	<u>5,080.69</u>
Active Days: 4											
Asphalt 12/28/2010-01/11/2011	4.17	19.21	12.24	0.01	0.03	1.44	1.47	0.01	1.32	1.33	1,946.12
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.48	14.87	8.27	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,131.92
Paving On Road Diesel	0.26	4.19	1.33	0.01	0.02	0.15	0.17	0.01	0.14	0.15	610.86
Paving Worker Trips	0.09	0.15	2.64	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.35
Fine Grading 11/30/2010-01/11/2011	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	4.16	33.67	17.48	0.00	0.00	1.79	1.79	0.00	1.65	1.65	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	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.09
Time Slice 1/3/2011-1/10/2011	7.95	49.72	30.17	0.01	112.64	3.06	115.70	23.53	2.82	26.34	5,080.89
Active Days: 8											
Asphalt 12/28/2010-01/11/2011	4.00	18.03	11.82	0.01	0.03	1.37	1.41	0.01	1.26	1.27	1,948.24
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.17	8.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,131.92
Paving On Road Diesel	0.24	3.73	1.20	0.01	0.02	0.13	0.16	0.01	0.12	0.13	610.86
Paving Worker Trips	0.08	0.14	2.44	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.47
Fine Grading 11/30/2010-01/11/2011	3.86	31.69	18.35	0.00	112.61	1.69	114.29	23.52	1.55	25.07	3,134.64
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	3.91	31.61	16.82	0.00	0.00	1.68	1.68	0.00	1.55	1.55	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	0.09	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.17

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Time Slice 1/11/2011-1/11/2011	14.68	<u>91.97</u>	<u>106.18</u>	<u>0.09</u>	<u>113.01</u>	<u>5.18</u>	<u>118.20</u>	<u>23.66</u>	<u>4.75</u>	<u>28.41</u>	<u>15,703.19</u>
Active Days: 1											
Asphalt 12/28/2010-01/11/2011	4.00	18.03	11.82	0.01	0.03	1.37	1.41	0.01	1.26	1.27	1,948.24
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.17	8.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,131.92
Paving On Road Diesel	0.24	3.73	1.20	0.01	0.02	0.13	0.16	0.01	0.12	0.13	610.86
Paving Worker Trips	0.08	0.14	2.44	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.47
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.06	0.06	0.80	0.68	5,083.18
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93
Fine Grading 11/30/2010-01/11/2011	3.96	31.69	18.35	0.00	112.61	1.69	114.29	23.52	1.55	25.07	3,134.64
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	3.91	31.61	16.82	0.00	0.00	1.68	1.68	0.00	1.55	1.55	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	0.09	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.17
Time Slice 1/12/2011-8/5/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Active Days: 148											
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.06	0.06	0.80	0.68	5,083.18
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93

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Time Slice 8/8/2011-8/22/2011	<u>507.30</u>	42.64	83.14	0.09	0.41	2.14	2.54	0.14	1.95	2.09	11,216.35
Active Days: 11											
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.08	0.05	0.18	0.88	1.06	0.06	0.60	0.86	5,083.18
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93
Coaling 08/08/2011-09/05/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Architectural Coaling	500.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coaling Worker Trips	0.23	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Time Slice 8/23/2011-9/5/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Active Days: 10											
Coaling 08/08/2011-09/05/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Architectural Coaling	500.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coaling Worker Trips	0.23	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05

Phase Assumptions

Phase: Fine Grading 11/30/2010 - 1/11/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 22.53

Maximum Daily Acreage Disturbed: 5.63

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 12/28/2010 - 1/11/2011 - Default Paving Description

Acres to be Paved: 5.63

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 1/11/2011 - 8/22/2011 - 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 8/8/2011 - 9/5/2011 - 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

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

ROG

NOx

CO

SO2

PM10 Dust

PM10 Exhaust

PM10

PM2.5 Dust

PM2.5 Exhaust

PM2.5

CO2

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Time Slice 11/30/2010-12/27/2010	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Active Days: 20											
Fine Grading 11/30/2010-01/11/2011	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	4.16	33.67	17.48	0.00	0.00	1.79	1.79	0.00	1.65	1.65	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	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.09
Time Slice 12/28/2010-12/31/2010	<u>8.39</u>	<u>52.97</u>	<u>31.37</u>	<u>0.01</u>	<u>112.64</u>	<u>3.24</u>	<u>115.87</u>	<u>23.53</u>	<u>2.98</u>	<u>26.50</u>	<u>5,080.69</u>
Active Days: 4											
Asphalt 12/28/2010-01/11/2011	4.17	19.21	12.24	0.01	0.03	1.44	1.47	0.01	1.32	1.33	1,946.12
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.48	14.87	6.27	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,131.92
Paving On Road Diesel	0.26	4.19	1.33	0.01	0.02	0.15	0.17	0.01	0.14	0.15	610.86
Paving Worker Trips	0.09	0.15	2.64	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.35
Fine Grading 11/30/2010-01/11/2011	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	4.16	33.67	17.48	0.00	0.00	1.79	1.79	0.00	1.65	1.65	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	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.09

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Time Slice 1/3/2011-1/10/2011	7.96	49.72	30.17	0.01	112.64	3.06	115.70	23.53	2.82	26.34	5,060.69
Active Days: 6											
Asphalt 12/28/2010-01/11/2011	4.00	16.03	11.82	0.01	0.03	1.37	1.41	0.01	1.26	1.27	1,946.24
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.17	8.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,131.92
Paving On Road Diesel	0.24	3.73	1.20	0.01	0.02	0.13	0.16	0.01	0.12	0.13	610.86
Paving Worker Trips	0.08	0.14	2.44	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.47
Fine Grading 11/30/2010-01/11/2011	3.96	31.69	18.35	0.00	112.61	1.69	114.29	23.52	1.55	25.07	3,134.64
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	3.91	31.61	16.82	0.00	0.00	1.68	1.68	0.00	1.55	1.55	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	0.09	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.17

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Time Slice 1/11/2011-1/11/2011	14.68	<u>91.97</u>	<u>106.18</u>	<u>0.09</u>	<u>113.01</u>	<u>5.18</u>	<u>118.20</u>	<u>23.65</u>	<u>4.75</u>	<u>28.41</u>	<u>16,703.19</u>
Active Days: 1											
Asphalt 12/28/2010-01/11/2011	4.00	18.03	11.82	0.01	0.03	1.37	1.41	0.01	1.26	1.27	1,946.24
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.17	8.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,131.82
Paving On Road Diesel	0.24	3.73	1.20	0.01	0.02	0.13	0.16	0.01	0.12	0.13	610.86
Paving Worker Trips	0.08	0.14	2.44	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.47
Building 01/11/2011-08/22/2011	8.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.06	0.08	0.80	0.86	5,083.18
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93
Fine Grading 11/30/2010-01/11/2011	3.96	31.69	18.35	0.00	112.61	1.89	114.29	23.52	1.55	25.07	3,134.64
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	3.91	31.61	18.82	0.00	0.00	1.88	1.88	0.00	1.55	1.55	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	0.09	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.17
Time Slice 1/12/2011-8/5/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Active Days: 148											
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.06	0.08	0.80	0.86	5,083.18
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93

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Time Slice 8/8/2011-8/22/2011 Active Days: 11	<u>507.30</u>	42.64	83.14	0.09	0.41	2.14	2.54	0.14	1.95	2.09	11,216.35
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.08	0.06	0.80	0.86	5,083.18
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.08	0.16	3,917.93
Coating 08/08/2011-09/05/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Architectural Coating	500.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.23	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Time Slice 8/23/2011-9/5/2011 Active Days: 10	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Coating 08/08/2011-09/05/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Architectural Coating	500.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.23	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05

Construction Related Million Measures

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.12	1.70	1.43	0.00	0.00	0.00	2,042.44
Hearth							
Landscape	0.25	0.04	3.09	0.00	0.01	0.01	5.62
Consumer Products	0.00						
Architectural Coatings	2.87						
TOTALS (lbs/day, unmitigated)	3.24	1.74	4.52	0.00	0.01	0.01	2,048.06

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Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.12	1.70	1.43	0.00	0.00	0.00	2,042.44
Hearth							
Landscape	0.25	0.04	3.09	0.00	0.01	0.01	5.62
Consumer Products	0.00						
Architectural Coatings	2.87						
TOTALS (lbs/day, mitigated)	3.24	1.74	4.52	0.00	0.01	0.01	2,048.06

Area Source Mitigation Measures Selected

Mitigation Description

Percent Reduction

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Office park	11.59	11.62	129.01	0.10	18.56	3.56	10,586.92
Warehouse	14.46	12.77	135.30	0.11	20.50	3.92	11,559.29
TOTALS (lbs/day, unmitigated)	26.05	24.39	264.31	0.21	39.06	7.48	22,146.21

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Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Office park	11.59	11.62	129.01	0.10	18.56	3.56	10,586.92
Warehouse	14.46	12.77	135.30	0.11	20.50	3.92	11,559.29
TOTALS (lbs/day, mitigated)	26.05	24.39	264.31	0.21	39.06	7.48	22,146.21

Operational Mitigation Options Selected

Residential Mitigation Measures

Nonresidential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 0%

Inputs Selected:

The Presence of Local-Serving Retail checkbox was NOT selected.

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2012 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Office park		11.42	1000 sq ft	134.50	1,535.99	10,788.97
Warehouse		4.86	1000 sq ft	356.00	1,765.76	11,918.54
					3,301.75	22,707.51

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	45.7	0.8	98.7	0.4
Light Truck < 3750 lbs	17.8	2.3	92.6	5.1
Light Truck 3751-5750 lbs	18.9	1.0	98.5	0.5
Med Truck 5751-8500 lbs	7.8	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	68.8	31.2
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	100.0	0.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.9	59.0	41.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.1	0.0	90.9	9.1

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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	16.0	49.1			
% of Trips - Commercial (by land use)						
Office park				48.0	24.0	28.0
Warehouses				2.0	1.0	97.0

Operational Changes to Defaults

Attachment B: Winter Emission Estimates

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\James Clark\Application Data\Urbemis\Version9a\Projects\Napa34.urb924

Project Name: Napa 34 Commerical Center

Project Location: Napa County

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>
2010 TOTALS (lbs/day unmitigated)	8.39	52.97	31.37	0.01	112.64	3.24	115.87	23.53	2.98	26.50	5,080.69
2010 TOTALS (lbs/day mitigated)	8.39	52.97	31.37	0.01	112.64	3.24	115.87	23.53	2.98	26.50	5,080.69
2011 TOTALS (lbs/day unmitigated)	507.30	91.97	106.18	0.09	113.01	5.18	118.20	23.66	4.75	28.41	15,703.19
2011 TOTALS (lbs/day mitigated)	507.30	91.97	106.18	0.09	113.01	5.18	118.20	23.66	4.75	28.41	15,703.19

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)	2.99	1.70	1.43	0.00	0.00	0.00	2,042.44
TOTALS (lbs/day, mitigated)	2.99	1.70	1.43	0.00	0.00	0.00	2,042.44
Percent Reduction	0.00	0.00	0.00	NaN	NaN	NaN	0.00

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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)	26.18	36.88	290.25	0.19	39.06	7.48	19,242.34
TOTALS (lbs/day, mitigated)	26.18	36.88	290.25	0.19	39.06	7.48	19,242.34
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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)	29.17	38.58	291.68	0.19	39.06	7.48	21,284.78
TOTALS (lbs/day, mitigated)	29.17	38.58	291.68	0.19	39.06	7.48	21,284.78
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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>
Time Slice 11/30/2010-12/27/2010	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Active Days: 20											
Fine Grading 11/30/2010-01/11/2011	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	4.16	33.67	17.48	0.00	0.00	1.79	1.79	0.00	1.65	1.65	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	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.09

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Time Slice 12/26/2010-12/31/2010 Active Days: 4	<u>8.38</u>	<u>52.87</u>	<u>31.37</u>	<u>0.01</u>	<u>112.64</u>	<u>3.24</u>	<u>115.87</u>	<u>23.53</u>	<u>2.98</u>	<u>26.50</u>	<u>5,080.68</u>
Asphalt 12/28/2010-01/11/2011	4.17	19.21	12.24	0.01	0.03	1.44	1.47	0.01	1.32	1.33	1,946.12
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.48	14.87	8.27	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,131.92
Paving On Road Diesel	0.26	4.19	1.33	0.01	0.02	0.15	0.17	0.01	0.14	0.15	610.86
Paving Worker Trips	0.09	0.15	2.64	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.35
Fine Grading 11/30/2010-01/11/2011	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	4.16	33.67	17.48	0.00	0.00	1.78	1.79	0.00	1.65	1.65	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	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.09
Time Slice 1/3/2011-1/10/2011 Active Days: 6	7.96	49.72	30.17	0.01	112.64	3.06	115.70	23.53	2.82	26.34	5,080.69
Asphalt 12/28/2010-01/11/2011	4.00	18.03	11.82	0.01	0.03	1.37	1.41	0.01	1.28	1.27	1,946.24
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.17	8.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,131.92
Paving On Road Diesel	0.24	3.73	1.20	0.01	0.02	0.13	0.16	0.01	0.12	0.13	610.86
Paving Worker Trips	0.08	0.14	2.44	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.47
Fine Grading 11/30/2010-01/11/2011	3.96	31.68	18.35	0.00	112.61	1.89	114.29	23.52	1.55	25.07	3,134.64
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	3.91	31.61	16.82	0.00	0.00	1.88	1.88	0.00	1.55	1.55	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	0.09	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.17

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Time Slice 1/11/2011-1/11/2011	14.68	<u>21.97</u>	<u>106.18</u>	<u>0.09</u>	<u>113.01</u>	<u>5.18</u>	<u>118.20</u>	<u>23.66</u>	<u>4.76</u>	<u>28.41</u>	<u>16,703.19</u>
Active Days: 1											
Asphalt 12/26/2010-01/11/2011	4.00	18.03	11.82	0.01	0.03	1.37	1.41	0.01	1.26	1.27	1,946.24
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.17	8.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,131.92
Paving On Road Diesel	0.24	3.73	1.20	0.01	0.02	0.13	0.16	0.01	0.12	0.13	610.88
Paving Worker Trips	0.08	0.14	2.44	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.47
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.06	0.06	0.80	0.88	5,083.16
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93
Fine Grading 11/30/2010-01/11/2011	3.96	31.69	18.35	0.00	112.61	1.69	114.29	23.52	1.55	25.07	3,134.64
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	3.91	31.61	16.82	0.00	0.00	1.68	1.68	0.00	1.55	1.55	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	0.09	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.17
Time Slice 1/12/2011-8/5/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Active Days: 148											
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.06	0.06	0.80	0.88	5,083.16
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93

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Time Slice 8/8/2011-8/22/2011	507.30	42.64	83.14	0.09	0.41	2.14	2.54	0.14	1.95	2.09	11,216.35
Active Days: 11											
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.06	0.06	0.80	0.66	5,083.18
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93
Coaling 08/08/2011-09/05/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Architectural Coaling	500.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coaling Worker Trips	0.23	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Time Slice 8/23/2011-9/5/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Active Days: 10											
Coaling 08/08/2011-09/05/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Architectural Coaling	500.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coaling Worker Trips	0.23	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05

Phase Assumptions

Phase: Fine Grading 11/30/2010 - 1/11/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 22.53

Maximum Daily Acreage Disturbed: 5.63

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 12/28/2010 - 1/11/2011 - Default Paving Description

Acres to be Paved: 5.63

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 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 1/11/2011 - 6/22/2011 - 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 8/8/2011 - 9/5/2011 - 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

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter 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>
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Time Slice 11/30/2010-12/27/2010	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Active Days: 20											
Fine Grading 11/30/2010-01/11/2011	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	4.16	33.67	17.46	0.00	0.00	1.79	1.79	0.00	1.65	1.65	3,007.46
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	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.09
Time Slice 12/28/2010-12/31/2010	8.39	52.97	31.37	0.01	112.64	3.24	115.87	23.63	2.98	28.50	5,080.69
Active Days: 4											
Asphalt 12/28/2010-01/11/2011	4.17	19.21	12.24	0.01	0.03	1.44	1.47	0.01	1.32	1.33	1,946.12
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.48	14.87	8.27	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,131.92
Paving On Road Diesel	0.26	4.19	1.33	0.01	0.02	0.15	0.17	0.01	0.14	0.15	610.86
Paving Worker Trips	0.09	0.15	2.64	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.35
Fine Grading 11/30/2010-01/11/2011	4.22	33.76	19.13	0.00	112.61	1.80	114.40	23.52	1.65	25.17	3,134.57
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	4.16	33.67	17.46	0.00	0.00	1.79	1.79	0.00	1.65	1.65	3,007.46
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	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.09

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Time Slice 1/3/2011-1/10/2011	7.96	49.72	30.17	0.01	112.64	3.06	115.70	23.53	2.62	26.34	5,080.89
Active Days: 6											
Asphalt 12/28/2010-01/11/2011	4.00	18.03	11.82	0.01	0.03	1.37	1.41	0.01	1.26	1.27	1,946.24
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.17	8.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,131.92
Paving On Road Diesel	0.24	3.73	1.20	0.01	0.02	0.13	0.16	0.01	0.12	0.13	610.88
Paving Worker Trips	0.08	0.14	2.44	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.47
Fine Grading 11/30/2010-01/11/2011	3.96	31.69	18.35	0.00	112.61	1.69	114.29	23.52	1.55	25.07	3,134.64
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	3.91	31.61	16.82	0.00	0.00	1.68	1.68	0.00	1.55	1.55	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	0.09	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.17

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Time Slice 1/11/2011-1/11/2011	14.68	<u>91.97</u>	<u>106.18</u>	<u>0.09</u>	<u>113.01</u>	<u>5.18</u>	<u>118.20</u>	<u>23.56</u>	<u>4.75</u>	<u>28.41</u>	<u>15,703.19</u>
Active Days: 1											
Asphalt 12/28/2010-01/11/2011	4.00	18.03	11.82	0.01	0.03	1.37	1.41	0.01	1.26	1.27	1,946.24
Paving Off-Gas	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.17	8.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,131.92
Paving On Road Diesel	0.24	3.73	1.20	0.01	0.02	0.13	0.16	0.01	0.12	0.13	610.86
Paving Worker Trips	0.08	0.14	2.44	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.47
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.06	0.06	0.80	0.86	5,083.18
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93
Fine Grading 11/30/2010-01/11/2011	3.96	31.69	18.35	0.00	112.61	1.69	114.29	23.52	1.55	25.07	3,134.64
Fine Grading Dust	0.00	0.00	0.00	0.00	112.60	0.00	112.60	23.52	0.00	23.52	0.00
Fine Grading Off Road Diesel	3.91	31.61	16.82	0.00	0.00	1.68	1.68	0.00	1.55	1.55	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	0.09	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.17
Time Slice 1/12/2011-8/5/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Active Days: 148											
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.06	0.06	0.80	0.86	5,083.18
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93

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Time Slice 8/8/2011-8/22/2011	<u>507.30</u>	42.64	83.14	0.09	0.41	2.14	2.54	0.14	1.95	2.09	11,216.35
Active Days: 11											
Building 01/11/2011-08/22/2011	6.72	42.24	76.01	0.09	0.38	2.12	2.50	0.13	1.94	2.07	10,622.30
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	1.79	23.94	18.09	0.05	0.18	0.88	1.06	0.06	0.80	0.88	5,083.18
Building Worker Trips	1.54	2.63	47.07	0.04	0.19	0.11	0.30	0.07	0.09	0.16	3,917.93
Coating 08/08/2011-09/05/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Architectural Coating	500.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.23	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Time Slice 8/23/2011-9/5/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Active Days: 10											
Coating 08/08/2011-09/05/2011	500.58	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05
Architectural Coating	500.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.23	0.40	7.14	0.01	0.03	0.02	0.05	0.01	0.01	0.02	594.05

Construction Related Mitigation Measures

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	0.12	1.70	1.43	0.00	0.00	0.00	2,042.44
Hearth							
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	2.87						
TOTALS (lbs/day, unmitigated)	2.99	1.70	1.43	0.00	0.00	0.00	2,042.44

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Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.12	1.70	1.43	0.00	0.00	0.00	2,042.44
Hearth							
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	2.87						
TOTALS (lbs/day, mitigated)	2.99	1.70	1.43	0.00	0.00	0.00	2,042.44

Area Source Mitigation Measures Selected

Mitigation Description

Percent Reduction

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
Office park	12.62	17.59	139.63	0.09	18.56	3.56	9,207.21
Warehouse	13.56	19.29	150.62	0.10	20.50	3.92	10,035.13
TOTALS (lbs/day, unmitigated)	26.18	36.68	290.25	0.19	39.06	7.48	19,242.34

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Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Office park	12.62	17.59	139.63	0.09	18.58	3.56	9,207.21
Warehouse	13.56	19.29	150.62	0.10	20.50	3.92	10,035.13
TOTALS (lbs/day, mitigated)	26.18	36.88	290.25	0.19	39.08	7.48	19,242.34

Operational Mitigation Options Selected

Residential Mitigation Measures

Nonresidential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

Percent Reduction in Trips is 0%

Inputs Selected:

The Presence of Local-Serving Retail checkbox was NOT selected.

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2012 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2008

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Office park		11.42	1000 sq ft	134.50	1,535.99	10,788.97
Warehouse		4.96	1000 sq ft	356.00	1,765.76	11,918.54
					3,301.75	22,707.51

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	45.7	0.9	98.7	0.4
Light Truck < 3750 lbs	17.6	2.3	92.6	5.1
Light Truck 3751-5750 lbs	19.9	1.0	98.5	0.5
Med Truck 5751-8500 lbs	7.8	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	88.8	31.2
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.8	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	100.0	0.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.9	59.0	41.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.1	0.0	90.9	9.1

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)	15.8	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)						
Office park				48.0	24.0	28.0
Warehouse				2.0	1.0	97.0

Operational Changes to Defaults



Attachment C

North Fork Associates, *Biological Resources Assessment*,

June 1, 2009

(sans appendices)

