

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: I:\Projects\Active\Clayton\Community Park Parking Lot Expansion\Technical Reports\AQ\URBEMIS.urb924

Project Name: Clayton Community Park Parking Lot Expansion

Project Location: Contra Costa 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>
2011 TOTALS (lbs/day unmitigated)	5.00	38.18	22.87	0.01	6.43	2.28	8.71	1.35	2.09	3.44	4,032.00

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 6/1/2011-6/30/2011 Active Days: 22	3.07	26.72	14.07	0.01	6.42	1.29	7.71	1.34	1.19	2.53	2,856.93
Fine Grading 06/01/2011-07/01/2011	3.07	26.72	14.07	0.01	6.42	1.29	7.71	1.34	1.19	2.53	2,856.93
Fine Grading Dust	0.00	0.00	0.00	0.00	6.40	0.00	6.40	1.34	0.00	1.34	0.00
Fine Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Fine Grading On Road Diesel	0.21	3.22	1.04	0.00	0.02	0.12	0.13	0.01	0.11	0.11	507.63
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.99

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Time Slice 7/1/2011-7/1/2011 Active Days: 1	<u>5.00</u>	<u>38.18</u>	<u>22.87</u>	<u>0.01</u>	<u>6.43</u>	<u>2.28</u>	<u>8.71</u>	<u>1.35</u>	<u>2.09</u>	<u>3.44</u>	<u>4.032.00</u>
Asphalt 07/01/2011-08/01/2011	1.93	11.47	8.81	0.00	0.01	0.98	0.99	0.00	0.91	0.91	1,175.06
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.83	11.26	6.91	0.00	0.00	0.98	0.98	0.00	0.90	0.90	979.23
Paving On Road Diesel	0.01	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.36
Paving Worker Trips	0.06	0.10	1.86	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.48
Fine Grading 06/01/2011-07/01/2011	3.07	26.72	14.07	0.01	6.42	1.29	7.71	1.34	1.19	2.53	2,856.93
Fine Grading Dust	0.00	0.00	0.00	0.00	6.40	0.00	6.40	1.34	0.00	1.34	0.00
Fine Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Fine Grading On Road Diesel	0.21	3.22	1.04	0.00	0.02	0.12	0.13	0.01	0.11	0.11	507.63
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.99
Time Slice 7/4/2011-7/29/2011 Active Days: 20	1.93	11.47	8.81	0.00	0.01	0.98	0.99	0.00	0.91	0.91	1,175.06
Asphalt 07/01/2011-08/01/2011	1.93	11.47	8.81	0.00	0.01	0.98	0.99	0.00	0.91	0.91	1,175.06
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.83	11.26	6.91	0.00	0.00	0.98	0.98	0.00	0.90	0.90	979.23
Paving On Road Diesel	0.01	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.36
Paving Worker Trips	0.06	0.10	1.86	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.48

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Time Slice 8/16/2011-8/22/2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Active Days: 5											
Coating 08/15/2011-08/22/2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase Assumptions

Phase: Fine Grading 6/1/2011 - 7/1/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 1.26

Maximum Daily Acreage Disturbed: 0.32

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 126.09

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 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

Phase: Paving 7/1/2011 - 8/1/2011 - Default Paving Description

Acres to be Paved: 0.32

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
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 8/1/2011 - 8/15/2011 - Default Building Construction Description

Off-Road Equipment:

Page: 5

11/3/2010 9:46:21 AM

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 8/15/2011 - 8/22/2011 - 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

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: I:\Projects\Active\Clayton\Community Park Parking Lot Expansion\Technical Reports\AQ\URBEMIS.urb924

Project Name: Clayton Community Park Parking Lot Expansion

Project Location: Contra Costa 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>
2011 TOTALS (lbs/day unmitigated)	5.00	38.18	22.87	0.01	6.43	2.28	8.71	1.35	2.09	3.44	4,032.00

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 6/1/2011-6/30/2011	3.07	26.72	14.07	0.01	6.42	1.29	7.71	1.34	1.19	2.53	2,856.93
Active Days: 22											
Fine Grading 06/01/2011-07/01/2011	3.07	26.72	14.07	0.01	6.42	1.29	7.71	1.34	1.19	2.53	2,856.93
Fine Grading Dust	0.00	0.00	0.00	0.00	6.40	0.00	6.40	1.34	0.00	1.34	0.00
Fine Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Fine Grading On Road Diesel	0.21	3.22	1.04	0.00	0.02	0.12	0.13	0.01	0.11	0.11	507.63
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.99

11/3/2010 9:46:49 AM

Time Slice	<u>5.00</u>	<u>38.18</u>	<u>22.87</u>	<u>0.01</u>	<u>6.43</u>	<u>2.28</u>	<u>8.71</u>	<u>1.35</u>	<u>2.09</u>	<u>3.44</u>	<u>4.032.00</u>
7/1/2011-7/1/2011 Active Days: 1											
Asphalt 07/01/2011-08/01/2011	1.93	11.47	8.81	0.00	0.01	0.98	0.99	0.00	0.91	0.91	1,175.06
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.83	11.26	6.91	0.00	0.00	0.98	0.98	0.00	0.90	0.90	979.23
Paving On Road Diesel	0.01	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.36
Paving Worker Trips	0.06	0.10	1.86	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.48
Fine Grading 06/01/2011-07/01/2011	3.07	26.72	14.07	0.01	6.42	1.29	7.71	1.34	1.19	2.53	2,856.93
Fine Grading Dust	0.00	0.00	0.00	0.00	6.40	0.00	6.40	1.34	0.00	1.34	0.00
Fine Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Fine Grading On Road Diesel	0.21	3.22	1.04	0.00	0.02	0.12	0.13	0.01	0.11	0.11	507.63
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.99
Time Slice 7/4/2011-7/29/2011 Active Days: 20	1.93	11.47	8.81	0.00	0.01	0.98	0.99	0.00	0.91	0.91	1,175.06
Asphalt 07/01/2011-08/01/2011	1.93	11.47	8.81	0.00	0.01	0.98	0.99	0.00	0.91	0.91	1,175.06
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.83	11.26	6.91	0.00	0.00	0.98	0.98	0.00	0.90	0.90	979.23
Paving On Road Diesel	0.01	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.36
Paving Worker Trips	0.06	0.10	1.86	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.48

11/3/2010 9:46:49 AM

Time Slice 8/16/2011-8/22/2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Active Days: 5											
Coating 08/15/2011-08/22/2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase Assumptions

Phase: Fine Grading 6/1/2011 - 7/1/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 1.26

Maximum Daily Acreage Disturbed: 0.32

Fugitive Dust Level of Detail: Default

 20 lbs per acre-day

On Road Truck Travel (VMT): 126.09

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 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

Phase: Paving 7/1/2011 - 8/1/2011 - Default Paving Description

Acres to be Paved: 0.32

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
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 8/1/2011 - 8/15/2011 - Default Building Construction Description

Off-Road Equipment:

Page: 5

11/3/2010 9:46:49 AM

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 8/15/2011 - 8/22/2011 - 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

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: I:\Projects\Active\Clayton\Community Park Parking Lot Expansion\Technical Reports\AQ\URBEMIS.urb924

Project Name: Clayton Community Park Parking Lot Expansion

Project Location: Contra Costa 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>
2011 TOTALS (tons/year unmitigated)	0.06	0.48	0.30	0.00	0.07	0.03	0.10	0.02	0.03	0.04	51.99

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, 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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2011	0.06	0.48	0.30	0.00	0.07	0.03	0.10	0.02	0.03	0.04	51.99
Fine Grading 06/01/2011-07/01/2011	0.04	0.31	0.16	0.00	0.07	0.01	0.09	0.02	0.01	0.03	32.85
Fine Grading Dust	0.00	0.00	0.00	0.00	0.07	0.00	0.07	0.02	0.00	0.02	0.00
Fine Grading Off Road Diesel	0.03	0.27	0.14	0.00	0.00	0.01	0.01	0.00	0.01	0.01	25.84
Fine Grading On Road Diesel	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.84
Fine Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17
Asphalt 07/01/2011-08/01/2011	0.02	0.13	0.10	0.00	0.00	0.01	0.01	0.00	0.01	0.01	12.93
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.02	0.12	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	10.77
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
Paving Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.96
Building 08/01/2011-08/15/2011	0.01	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.21
Building Off Road Diesel	0.01	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.91
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	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29
Coating 08/15/2011-08/22/2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase Assumptions

Phase: Fine Grading 6/1/2011 - 7/1/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 1.26

Maximum Daily Acreage Disturbed: 0.32

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

Page: 3

11/3/2010 9:47:08 AM

On Road Truck Travel (VMT): 126.09

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 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

Phase: Paving 7/1/2011 - 8/1/2011 - Default Paving Description

Acres to be Paved: 0.32

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
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 8/1/2011 - 8/15/2011 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 8/15/2011 - 8/22/2011 - 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

