APPENDIX 4.2

Air Quality

URBEMIS2007 Existing Condition Emissions

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: Z:\Glu\Oakland Projects\Gallery at Central Park\Existing Gallery at Central Park Operational.urb924

Project Name: 900 Kiely Existing Kaiser Facility

Project Location: Santa Clara County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.04	0.04	0.18	0.00	0.00	0.00	44.05

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1.02	1.15	10.82	0.01	1.24	0.24	665.17

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1.06	1.19	11.00	0.01	1.24	0.24	709.22

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.00	0.04	0.03	0.00	0.00	0.00	43.80
Hearth							
Landscape	0.01	0.00	0.15	0.00	0.00	0.00	0.25
Consumer Products							
Architectural Coatings	0.03						
TOTALS (tons/year, unmitigated)	0.04	0.04	0.18	0.00	0.00	0.00	44.05

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Medical office building	1.02	1.15	10.82	0.01	1.24	0.24	665.17
TOTALS (tons/year, unmitigated)	1.02	1.15	10.82	0.01	1.24	0.24	665.17

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2008 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
Medical office building		26.00	1000 sq ft	30.00	780.00	3,954.86
					780.00	3,954.86

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.2	1.8	97.8	0.4
Light Truck < 3750 lbs	11.9	3.4	93.2	3.4
Light Truck 3751-5750 lbs	20.5	1.0	98.5	0.5
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	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	2.8	78.6	21.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

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)						
Medical office building				7.0	3.5	89.5

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: Z:\Glu\Oakland Projects\Gallery at Central Park\Existing Gallery at Central Park Operational.urb924

Project Name: 900 Kiely Existing Kaiser Facility

Project Location: Santa Clara County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.33	0.22	1.83	0.00	0.00	0.00	242.75

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5.20	5.39	56.62	0.04	6.81	1.30	3,813.87

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5.53	5.61	58.45	0.04	6.81	1.30	4,056.62

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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	0.01	0.20	0.17	0.00	0.00	0.00	240.00
Hearth							
Landscape	0.14	0.02	1.66	0.00	0.00	0.00	2.75
Consumer Products							
Architectural Coatings	0.18						
TOTALS (lbs/day, unmitigated)	0.33	0.22	1.83	0.00	0.00	0.00	242.75

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
Medical office building	5.20	5.39	56.62	0.04	6.81	1.30	3,813.87
TOTALS (lbs/day, unmitigated)	5.20	5.39	56.62	0.04	6.81	1.30	3,813.87

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2008 Temperature (F): 85 Season: Summer

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
Medical office building		26.00	1000 sq ft	30.00	780.00	3,954.86
					780.00	3,954.86

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.2	1.8	97.8	0.4
Light Truck < 3750 lbs	11.9	3.4	93.2	3.4
Light Truck 3751-5750 lbs	20.5	1.0	98.5	0.5
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	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	2.8	78.6	21.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

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)						
Medical office building				7.0	3.5	89.5

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: Z:\Glu\Oakland Projects\Gallery at Central Park\Existing Gallery at Central Park Operational.urb924

Project Name: 900 Kiely Existing Kaiser Facility

Project Location: Santa Clara County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.19	0.20	0.17	0.00	0.00	0.00	240.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	6.33	8.11	64.71	0.03	6.81	1.30	3,306.53

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	6.52	8.31	64.88	0.03	6.81	1.30	3,546.53

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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	0.01	0.20	0.17	0.00	0.00	0.00	240.00
Hearth							
Landscaping - No Winter Emissions							
Consumer Products							
Architectural Coatings	0.18						
TOTALS (lbs/day, unmitigated)	0.19	0.20	0.17	0.00	0.00	0.00	240.00

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
Medical office building	6.33	8.11	64.71	0.03	6.81	1.30	3,306.53
TOTALS (lbs/day, unmitigated)	6.33	8.11	64.71	0.03	6.81	1.30	3,306.53

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2008 Temperature (F): 40 Season: Winter

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
Medical office building		26.00	1000 sq ft	30.00	780.00	3,954.86
					780.00	3,954.86

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.2	1.8	97.8	0.4
Light Truck < 3750 lbs	11.9	3.4	93.2	3.4
Light Truck 3751-5750 lbs	20.5	1.0	98.5	0.5
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	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	2.8	78.6	21.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

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)						
Medical office building				7.0	3.5	89.5

Construction Assumptions

Demolition Calculations
Gallery at Central Park Existing Buildings and Asphalt/Concrete

Demolition Schedule			
Months	6.0	months	entered
Days/Month	22	days/mo	URBEMIS default
Actual Building Dimensions			
Length	228	feet	entered
Width	228	feet	entered
Height	115	feet	entered
Building Volume	5,969,930	cubic feet	calculated
Pavement Removed			
Area	722,538	square feet	entered
Depth	0.3	foot	assumed
Revised Building Volume with Pavement			
Length	245.54	feet	calculated
Width	245.54	feet	calculated
Height	115	feet	same as building
Volume	6,933,314	cubic feet	calculated
Daily Building Volume			
Length	21.37	feet	calculated
Width	21.37	feet	calculated
Height	115	feet	same as building
Volume	52,525	cubic feet	calculated
Demolition Debris			
% of Bldg. Volume	25%		URBEMIS default
Daily Debris Volume	486.3	cubic yards	calculated
Haul Trucks			
Capacity	20	cubic yards	URBEMIS default
Number of Trips	24.3	trips/day	calculated
Round Trip Length	30	miles	URBEMIS default
VMT	729.00	miles/day	calculated

URBEMIS2007 Proposed Project Emissions

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: Z:\Alan Sako\966.01 Gallery at Central Park\Emissions\Gallery at Central Park Construction and Operational Emissions.urb924
Project Name: 900 Kiely Construction and Proposed Operation
Project Location: Santa Clara 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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (tons/year unmitigated)	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
2009 TOTALS (tons/year mitigated)	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010 TOTALS (tons/year unmitigated)	4.81	6.02	11.97	0.01	0.17	0.36	0.53	0.04	0.33	0.37	1,386.17
2010 TOTALS (tons/year mitigated)	4.81	6.02	11.97	0.01	0.10	0.36	0.46	0.03	0.33	0.35	1,386.17
Percent Reduction	0.00	0.00	0.00	0.00	39.87	0.00	12.85	33.44	0.00	3.83	0.00
2011 TOTALS (tons/year unmitigated)	7.61	4.66	11.37	0.01	0.05	0.27	0.32	0.02	0.24	0.26	1,374.45
2011 TOTALS (tons/year mitigated)	7.61	4.66	11.37	0.01	0.05	0.27	0.32	0.02	0.24	0.26	1,374.45
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	7.70	1.16	0.95	0.00	0.00	0.00	1,472.19
TOTALS (tons/year, mitigated)	7.69	0.99	0.88	0.00	0.00	0.00	1,251.92
Percent Reduction	0.13	14.66	7.37	0.00	0.00	0.00	14.96

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	7.58	9.07	87.90	0.08	13.62	2.59	7,283.68

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	15.28	10.23	88.85	0.08	13.62	2.59	8,755.87

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

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Combined Annual Emissions Reports (Tons/Year)

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
Demolition 06/01/2009-12/31/2009	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
Fugitive Dust	0.00	0.00	0.00	0.00	1.46	0.00	1.46	0.30	0.00	0.30	0.00
Demo Off Road Diesel	0.49	4.11	2.24	0.00	0.00	0.20	0.20	0.00	0.18	0.18	342.75
Demo On Road Diesel	0.10	1.72	0.54	0.00	0.01	0.06	0.07	0.00	0.06	0.06	226.76
Demo Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.79
2010	4.81	6.02	11.97	0.01	0.17	0.36	0.53	0.04	0.33	0.37	1,386.17
Mass Grading 01/01/2010-02/28/2010	0.06	0.51	0.28	0.00	0.12	0.03	0.15	0.03	0.02	0.05	48.16
Mass Grading Dust	0.00	0.00	0.00	0.00	0.12	0.00	0.12	0.03	0.00	0.03	0.00
Mass Grading Off Road Diesel	0.06	0.51	0.26	0.00	0.00	0.03	0.03	0.00	0.02	0.02	46.07
Mass 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
Mass Grading Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.09
Asphalt 03/01/2010-06/30/2010	0.15	0.82	0.50	0.00	0.00	0.07	0.07	0.00	0.06	0.06	70.92
Paving Off-Gas	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.13	0.75	0.41	0.00	0.00	0.07	0.07	0.00	0.06	0.06	55.99
Paving On Road Diesel	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.33
Paving Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.60
Building 03/01/2010-11/30/2011	0.84	4.69	11.13	0.01	0.05	0.26	0.31	0.02	0.24	0.26	1,262.64
Building Off Road Diesel	0.45	2.56	1.57	0.00	0.00	0.18	0.18	0.00	0.17	0.17	248.52
Building Vendor Trips	0.12	1.65	1.27	0.00	0.01	0.06	0.07	0.00	0.06	0.06	328.33
Building Worker Trips	0.27	0.47	8.29	0.01	0.03	0.02	0.05	0.01	0.01	0.03	685.79
Coating 07/01/2010-11/30/2011	3.76	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.46
Architectural Coating	3.75	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	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.46
2011	7.61	4.66	11.37	0.01	0.05	0.27	0.32	0.02	0.24	0.26	1,374.45
Building 03/01/2010-11/30/2011	0.84	4.65	11.28	0.01	0.05	0.27	0.31	0.02	0.24	0.26	1,366.41
Building Off Road Diesel	0.45	2.60	1.66	0.00	0.00	0.19	0.19	0.00	0.17	0.17	268.85
Building Vendor Trips	0.12	1.59	1.28	0.00	0.01	0.06	0.07	0.00	0.05	0.06	355.21
Building Worker Trips	0.27	0.47	8.33	0.01	0.04	0.02	0.06	0.01	0.02	0.03	742.35
Coating 07/01/2010-11/30/2011	6.77	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.04
Architectural Coating	6.77	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	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.04

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

Phase Assumptions

Phase: Demolition 6/1/2009 - 12/31/2009 - Demolition of existing buildings
Building Volume Total (cubic feet): 6931079
Building Volume Daily (cubic feet): 52665.4
On Road Truck Travel (VMT): 731.46
Off-Road Equipment:
1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading
Total Acres Disturbed: 26
Maximum Daily Acreage Disturbed: 0.6
Fugitive Dust Level of Detail: Default
10 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 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 3/1/2010 - 6/30/2010 - Asphalt paving
Acres to be Paved: 15.64
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 6 hours per day
2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 3/1/2010 - 11/30/2011 - Building construction
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

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

Phase: Architectural Coating 7/1/2010 - 11/30/2011 - Architectural coating

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 Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
Demolition 06/01/2009-12/31/2009	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
Fugitive Dust	0.00	0.00	0.00	0.00	1.46	0.00	1.46	0.30	0.00	0.30	0.00
Demo Off Road Diesel	0.49	4.11	2.24	0.00	0.00	0.20	0.20	0.00	0.18	0.18	342.75
Demo On Road Diesel	0.10	1.72	0.54	0.00	0.01	0.06	0.07	0.00	0.06	0.06	226.76
Demo Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.79
2010	4.81	6.02	11.97	0.01	0.10	0.36	0.46	0.03	0.33	0.35	1,386.17
Mass Grading 01/01/2010-02/28/2010	0.06	0.51	0.28	0.00	0.06	0.03	0.08	0.01	0.02	0.04	48.16
Mass Grading Dust	0.00	0.00	0.00	0.00	0.06	0.00	0.06	0.01	0.00	0.01	0.00
Mass Grading Off Road Diesel	0.06	0.51	0.26	0.00	0.00	0.03	0.03	0.00	0.02	0.02	46.07
Mass 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
Mass Grading Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.09
Asphalt 03/01/2010-06/30/2010	0.15	0.82	0.50	0.00	0.00	0.07	0.07	0.00	0.06	0.06	70.92
Paving Off-Gas	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.13	0.75	0.41	0.00	0.00	0.07	0.07	0.00	0.06	0.06	55.99
Paving On Road Diesel	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.33
Paving Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.60
Building 03/01/2010-11/30/2011	0.84	4.69	11.13	0.01	0.05	0.26	0.31	0.02	0.24	0.26	1,262.64
Building Off Road Diesel	0.45	2.56	1.57	0.00	0.00	0.18	0.18	0.00	0.17	0.17	248.52
Building Vendor Trips	0.12	1.65	1.27	0.00	0.01	0.06	0.07	0.00	0.06	0.06	328.33
Building Worker Trips	0.27	0.47	8.29	0.01	0.03	0.02	0.05	0.01	0.01	0.03	685.79
Coating 07/01/2010-11/30/2011	3.76	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.46
Architectural Coating	3.75	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	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.46

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2011	7.61	4.66	11.37	0.01	0.05	0.27	0.32	0.02	0.24	0.26	1,374.45
Building 03/01/2010-11/30/2011	0.84	4.65	11.28	0.01	0.05	0.27	0.31	0.02	0.24	0.26	1,366.41
Building Off Road Diesel	0.45	2.60	1.66	0.00	0.00	0.19	0.19	0.00	0.17	0.17	268.85
Building Vendor Trips	0.12	1.59	1.28	0.00	0.01	0.06	0.07	0.00	0.05	0.06	355.21
Building Worker Trips	0.27	0.47	8.33	0.01	0.04	0.02	0.06	0.01	0.02	0.03	742.35
Coating 07/01/2010-11/30/2011	6.77	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.04
Architectural Coating	6.77	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	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.04

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading

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

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.09	1.15	0.49	0.00	0.00	0.00	1,468.47
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	2.92
Landscape	0.05	0.01	0.46	0.00	0.00	0.00	0.80
Consumer Products	6.51						
Architectural Coatings	1.05						
TOTALS (tons/year, unmitigated)	7.70	1.16	0.95	0.00	0.00	0.00	1,472.19

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

Percentage of residences with natural gas fireplaces changed from 55% to 100%

The number of persons per household for consumer product use changed from 2.861 persons to 2.59 persons

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Combined Annual Emissions Reports (Tons/Year)

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	0.61	0.77	7.45	0.01	1.15	0.22	617.45
Apartments low rise	5.03	6.02	58.34	0.05	9.04	1.72	4,833.87
Condo/townhouse general	1.94	2.28	22.11	0.02	3.43	0.65	1,832.36
TOTALS (tons/year, unmitigated)	7.58	9.07	87.90	0.08	13.62	2.59	7,283.68

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 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
Single family housing	15.00	9.57	dwelling	45.00	430.65	3,681.93
Apartments low rise	33.50	6.29	dwelling	536.00	3,371.44	28,824.80
Condo/townhouse general	14.06	5.68	dwelling	225.00	1,278.00	10,926.52
					5,080.09	43,433.25

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.1	0.9	98.9	0.2
Light Truck < 3750 lbs	11.8	1.7	95.8	2.5
Light Truck 3751-5750 lbs	20.6	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	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	2.9	65.5	34.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

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Combined Annual Emissions Reports (Tons/Year)

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)

Operational Changes to Defaults

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Combined Summer Emissions Reports (Pounds/Day)

File Name: Z:\Alan Sako\966.01 Gallery at Central Park\Emissions\Gallery at Central Park Construction and Operational Emissions.urb924
Project Name: 900 Kiely Construction and Proposed Operation
Project Location: Santa Clara 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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (lbs/day unmitigated)	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
2009 TOTALS (lbs/day mitigated)	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
2010 TOTALS (lbs/day unmitigated)	64.57	61.26	112.58	0.09	6.00	3.94	7.26	1.25	3.61	3.76	13,090.26
2010 TOTALS (lbs/day mitigated)	64.57	61.26	112.58	0.09	2.70	3.94	4.37	0.57	3.61	3.76	13,090.26
2011 TOTALS (lbs/day unmitigated)	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
2011 TOTALS (lbs/day mitigated)	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	42.55	6.36	7.78	0.00	0.03	0.03	8,055.26
TOTALS (lbs/day, mitigated)	42.47	5.42	7.38	0.00	0.03	0.03	6,848.30
Percent Reduction	0.19	14.78	5.14	0.00	0.00	0.00	14.98

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	41.64	42.45	473.07	0.42	74.60	14.21	41,809.03

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	84.19	48.81	480.85	0.42	74.63	14.24	49,864.29

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

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Combined Summer Emissions Reports (Pounds/Day)

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 6/1/2009-12/31/2009 Active Days: 154	7.77	**75.90**	37.79	0.03	**22.23**	3.40	**25.63**	**4.64**	3.13	**7.77**	7,523.28
Demolition 06/01/2009-12/31/2009	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
Fugitive Dust	0.00	0.00	0.00	0.00	22.12	0.00	22.12	4.60	0.00	4.60	0.00
Demo Off Road Diesel	6.37	53.41	29.12	0.00	0.00	2.58	2.58	0.00	2.37	2.37	4,451.28
Demo On Road Diesel	1.34	22.40	7.02	0.03	0.10	0.82	0.92	0.03	0.76	0.79	2,944.88
Demo Worker Trips	0.06	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.12
Time Slice 1/1/2010-2/26/2010 Active Days: 41	3.04	25.06	13.69	0.00	6.00	1.25	7.26	1.25	1.15	2.41	2,349.07
Mass Grading 01/01/2010-02/28/2010	3.04	25.06	13.69	0.00	6.00	1.25	7.26	1.25	1.15	2.41	2,349.07
Mass Grading Dust	0.00	0.00	0.00	0.00	6.00	0.00	6.00	1.25	0.00	1.25	0.00
Mass Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Mass 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
Mass Grading Worker Trips	0.04	0.07	1.23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.75
Time Slice 3/1/2010-6/30/2010 Active Days: 88	11.12	61.26	**112.58**	**0.09**	0.43	**3.94**	4.37	0.15	**3.61**	3.76	**13,090.26**
Asphalt 03/01/2010-06/30/2010	3.46	18.66	11.37	0.00	0.01	1.56	1.57	0.00	1.43	1.44	1,611.71
Paving Off-Gas	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.86	17.13	9.38	0.00	0.00	1.50	1.50	0.00	1.38	1.38	1,272.41
Paving On Road Diesel	0.09	1.45	0.46	0.00	0.01	0.05	0.06	0.00	0.05	0.05	212.12
Paving Worker Trips	0.05	0.09	1.54	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.19
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Time Slice 7/1/2010-12/31/2010 Active Days: 132	**64.57**	42.65	102.02	0.09	0.42	2.39	2.81	0.15	2.18	2.33	11,546.10
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Coating 07/01/2010-11/30/2011	56.92	0.05	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Architectural Coating	56.89	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	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55

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Combined Summer Emissions Reports (Pounds/Day)

Time Slice 1/3/2011-11/30/2011 Active Days: 238	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
Building 03/01/2010-11/30/2011	7.05	39.08	94.75	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,482.44
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.01	13.33	10.78	0.03	0.11	0.49	0.60	0.04	0.45	0.49	2,984.93
Building Worker Trips	2.27	3.91	70.02	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,238.23
Coating 07/01/2010-11/30/2011	56.91	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59
Architectural Coating	56.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59

Phase Assumptions

Phase: Demolition 6/1/2009 - 12/31/2009 - Demolition of existing buildings
Building Volume Total (cubic feet): 6931079
Building Volume Daily (cubic feet): 52665.4
On Road Truck Travel (VMT): 731.46
Off-Road Equipment:
1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading
Total Acres Disturbed: 26
Maximum Daily Acreage Disturbed: 0.6
Fugitive Dust Level of Detail: Default
10 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 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 3/1/2010 - 6/30/2010 - Asphalt paving
Acres to be Paved: 15.64
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 6 hours per day
2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

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Combined Summer Emissions Reports (Pounds/Day)

Phase: Building Construction 3/1/2010 - 11/30/2011 - Building construction
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

Phase: Architectural Coating 7/1/2010 - 11/30/2011 - Architectural coating
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
Time Slice 6/1/2009-12/31/2009 Active Days: 154	7.77	**75.90**	37.79	0.03	**22.23**	3.40	**25.63**	**4.64**	3.13	**7.77**	7,523.28
Demolition 06/01/2009-12/31/2009	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
Fugitive Dust	0.00	0.00	0.00	0.00	22.12	0.00	22.12	4.60	0.00	4.60	0.00
Demo Off Road Diesel	6.37	53.41	29.12	0.00	0.00	2.58	2.58	0.00	2.37	2.37	4,451.28
Demo On Road Diesel	1.34	22.40	7.02	0.03	0.10	0.82	0.92	0.03	0.76	0.79	2,944.88
Demo Worker Trips	0.06	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.12
Time Slice 1/1/2010-2/26/2010 Active Days: 41	3.04	25.06	13.69	0.00	2.70	1.25	3.96	0.57	1.15	1.72	2,349.07
Mass Grading 01/01/2010-02/28/2010	3.04	25.06	13.69	0.00	2.70	1.25	3.96	0.57	1.15	1.72	2,349.07
Mass Grading Dust	0.00	0.00	0.00	0.00	2.70	0.00	2.70	0.56	0.00	0.56	0.00
Mass Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Mass 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
Mass Grading Worker Trips	0.04	0.07	1.23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.75

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Combined Summer Emissions Reports (Pounds/Day)

Time Slice 3/1/2010-6/30/2010 Active Days: 88	11.12	61.26	**112.58**	**0.09**	0.43	**3.94**	4.37	0.15	**3.61**	3.76	**13,090.26**
Asphalt 03/01/2010-06/30/2010	3.46	18.66	11.37	0.00	0.01	1.56	1.57	0.00	1.43	1.44	1,611.71
Paving Off-Gas	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.86	17.13	9.38	0.00	0.00	1.50	1.50	0.00	1.38	1.38	1,272.41
Paving On Road Diesel	0.09	1.45	0.46	0.00	0.01	0.05	0.06	0.00	0.05	0.05	212.12
Paving Worker Trips	0.05	0.09	1.54	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.19
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Time Slice 7/1/2010-12/31/2010 Active Days: 132	**64.57**	42.65	102.02	0.09	0.42	2.39	2.81	0.15	2.18	2.33	11,546.10
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Coating 07/01/2010-11/30/2011	56.92	0.05	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Architectural Coating	56.89	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	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Time Slice 1/3/2011-11/30/2011 Active Days: 238	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
Building 03/01/2010-11/30/2011	7.05	39.08	94.75	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,482.44
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.01	13.33	10.78	0.03	0.11	0.49	0.60	0.04	0.45	0.49	2,984.93
Building Worker Trips	2.27	3.91	70.02	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,238.23
Coating 07/01/2010-11/30/2011	56.91	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59
Architectural Coating	56.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading

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

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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Combined Summer Emissions Reports (Pounds/Day)

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	0.49	6.30	2.68	0.00	0.01	0.01	8,046.42
Hearth - No Summer Emissions							
Landscape	0.61	0.06	5.10	0.00	0.02	0.02	8.84
Consumer Products	35.70						
Architectural Coatings	5.75						
TOTALS (lbs/day, unmitigated)	42.55	6.36	7.78	0.00	0.03	0.03	8,055.26

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

Percentage of residences with natural gas fireplaces changed from 55% to 100%

The number of persons per household for consumer product use changed from 2.861 persons to 2.59 persons

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	3.28	3.60	40.10	0.04	6.32	1.20	3,544.24
Apartments low rise	27.65	28.17	313.96	0.28	49.51	9.43	27,746.88
Condo/townhouse general	10.71	10.68	119.01	0.10	18.77	3.58	10,517.91
TOTALS (lbs/day, unmitigated)	41.64	42.45	473.07	0.42	74.60	14.21	41,809.03

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 85 Season: Summer

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
Single family housing	15.00	9.57	dwelling	45.00	430.65	3,681.93
Apartments low rise	33.50	6.29	dwelling	536.00	3,371.44	28,824.80
Condo/townhouse general	14.06	5.68	dwelling	225.00	1,278.00	10,926.52
					5,080.09	43,433.25

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Combined Summer Emissions Reports (Pounds/Day)

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.1	0.9	98.9	0.2
Light Truck < 3750 lbs	11.8	1.7	95.8	2.5
Light Truck 3751-5750 lbs	20.6	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	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	2.9	65.5	34.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

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)

Operational Changes to Defaults

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Combined Winter Emissions Reports (Pounds/Day)

File Name: Z:\Alan Sako\966.01 Gallery at Central Park\Emissions\Gallery at Central Park Construction and Operational Emissions.urb924
Project Name: 900 Kiely Construction and Proposed Operation
Project Location: Santa Clara 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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (lbs/day unmitigated)	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
2009 TOTALS (lbs/day mitigated)	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
2010 TOTALS (lbs/day unmitigated)	64.57	61.26	112.58	0.09	6.00	3.94	7.26	1.25	3.61	3.76	13,090.26
2010 TOTALS (lbs/day mitigated)	64.57	61.26	112.58	0.09	2.70	3.94	4.37	0.57	3.61	3.76	13,090.26
2011 TOTALS (lbs/day unmitigated)	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
2011 TOTALS (lbs/day mitigated)	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	42.21	10.88	4.63	0.03	0.38	0.38	13,894.66
TOTALS (lbs/day, mitigated)	42.13	9.94	4.23	0.03	0.38	0.38	12,687.70
Percent Reduction	0.19	8.64	8.64	0.00	0.00	0.00	8.69

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	41.35	64.24	498.83	0.36	74.60	14.21	36,113.77

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	83.56	75.12	503.46	0.39	74.98	14.59	50,008.43

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

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Combined Winter Emissions Reports (Pounds/Day)

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 6/1/2009-12/31/2009 Active Days: 154	7.77	**75.90**	37.79	0.03	**22.23**	3.40	**25.63**	**4.64**	3.13	**7.77**	7,523.28
Demolition 06/01/2009-12/31/2009	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
Fugitive Dust	0.00	0.00	0.00	0.00	22.12	0.00	22.12	4.60	0.00	4.60	0.00
Demo Off Road Diesel	6.37	53.41	29.12	0.00	0.00	2.58	2.58	0.00	2.37	2.37	4,451.28
Demo On Road Diesel	1.34	22.40	7.02	0.03	0.10	0.82	0.92	0.03	0.76	0.79	2,944.88
Demo Worker Trips	0.06	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.12
Time Slice 1/1/2010-2/26/2010 Active Days: 41	3.04	25.06	13.69	0.00	6.00	1.25	7.26	1.25	1.15	2.41	2,349.07
Mass Grading 01/01/2010-02/28/2010	3.04	25.06	13.69	0.00	6.00	1.25	7.26	1.25	1.15	2.41	2,349.07
Mass Grading Dust	0.00	0.00	0.00	0.00	6.00	0.00	6.00	1.25	0.00	1.25	0.00
Mass Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Mass 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
Mass Grading Worker Trips	0.04	0.07	1.23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.75
Time Slice 3/1/2010-6/30/2010 Active Days: 88	11.12	61.26	**112.58**	**0.09**	0.43	**3.94**	4.37	0.15	**3.61**	3.76	**13,090.26**
Asphalt 03/01/2010-06/30/2010	3.46	18.66	11.37	0.00	0.01	1.56	1.57	0.00	1.43	1.44	1,611.71
Paving Off-Gas	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.86	17.13	9.38	0.00	0.00	1.50	1.50	0.00	1.38	1.38	1,272.41
Paving On Road Diesel	0.09	1.45	0.46	0.00	0.01	0.05	0.06	0.00	0.05	0.05	212.12
Paving Worker Trips	0.05	0.09	1.54	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.19
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Time Slice 7/1/2010-12/31/2010 Active Days: 132	**64.57**	42.65	102.02	0.09	0.42	2.39	2.81	0.15	2.18	2.33	11,546.10
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Coating 07/01/2010-11/30/2011	56.92	0.05	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Architectural Coating	56.89	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	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55

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Combined Winter Emissions Reports (Pounds/Day)

Time Slice 1/3/2011-11/30/2011 Active Days: 238	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
Building 03/01/2010-11/30/2011	7.05	39.08	94.75	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,482.44
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.01	13.33	10.78	0.03	0.11	0.49	0.60	0.04	0.45	0.49	2,984.93
Building Worker Trips	2.27	3.91	70.02	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,238.23
Coating 07/01/2010-11/30/2011	56.91	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59
Architectural Coating	56.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59

Phase Assumptions

Phase: Demolition 6/1/2009 - 12/31/2009 - Demolition of existing buildings
Building Volume Total (cubic feet): 6931079
Building Volume Daily (cubic feet): 52665.4
On Road Truck Travel (VMT): 731.46
Off-Road Equipment:
1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading
Total Acres Disturbed: 26
Maximum Daily Acreage Disturbed: 0.6
Fugitive Dust Level of Detail: Default
10 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 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 3/1/2010 - 6/30/2010 - Asphalt paving
Acres to be Paved: 15.64
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 6 hours per day
2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

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Combined Winter Emissions Reports (Pounds/Day)

Phase: Building Construction 3/1/2010 - 11/30/2011 - Building construction
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

Phase: Architectural Coating 7/1/2010 - 11/30/2011 - Architectural coating
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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 6/1/2009-12/31/2009 Active Days: 154	7.77	**75.90**	37.79	0.03	**22.23**	3.40	**25.63**	**4.64**	3.13	**7.77**	7,523.28
Demolition 06/01/2009-12/31/2009	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
Fugitive Dust	0.00	0.00	0.00	0.00	22.12	0.00	22.12	4.60	0.00	4.60	0.00
Demo Off Road Diesel	6.37	53.41	29.12	0.00	0.00	2.58	2.58	0.00	2.37	2.37	4,451.28
Demo On Road Diesel	1.34	22.40	7.02	0.03	0.10	0.82	0.92	0.03	0.76	0.79	2,944.88
Demo Worker Trips	0.06	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.12
Time Slice 1/1/2010-2/26/2010 Active Days: 41	3.04	25.06	13.69	0.00	2.70	1.25	3.96	0.57	1.15	1.72	2,349.07
Mass Grading 01/01/2010-02/28/2010	3.04	25.06	13.69	0.00	2.70	1.25	3.96	0.57	1.15	1.72	2,349.07
Mass Grading Dust	0.00	0.00	0.00	0.00	2.70	0.00	2.70	0.56	0.00	0.56	0.00
Mass Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Mass 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
Mass Grading Worker Trips	0.04	0.07	1.23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.75

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Combined Winter Emissions Reports (Pounds/Day)

Time Slice 3/1/2010-6/30/2010 Active Days: 88	11.12	61.26	**112.58**	**0.09**	0.43	**3.94**	4.37	0.15	**3.61**	3.76	**13,090.26**
Asphalt 03/01/2010-06/30/2010	3.46	18.66	11.37	0.00	0.01	1.56	1.57	0.00	1.43	1.44	1,611.71
Paving Off-Gas	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.86	17.13	9.38	0.00	0.00	1.50	1.50	0.00	1.38	1.38	1,272.41
Paving On Road Diesel	0.09	1.45	0.46	0.00	0.01	0.05	0.06	0.00	0.05	0.05	212.12
Paving Worker Trips	0.05	0.09	1.54	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.19
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Time Slice 7/1/2010-12/31/2010 Active Days: 132	**64.57**	42.65	102.02	0.09	0.42	2.39	2.81	0.15	2.18	2.33	11,546.10
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Coating 07/01/2010-11/30/2011	56.92	0.05	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Architectural Coating	56.89	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	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Time Slice 1/3/2011-11/30/2011 Active Days: 238	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
Building 03/01/2010-11/30/2011	7.05	39.08	94.75	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,482.44
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.01	13.33	10.78	0.03	0.11	0.49	0.60	0.04	0.45	0.49	2,984.93
Building Worker Trips	2.27	3.91	70.02	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,238.23
Coating 07/01/2010-11/30/2011	56.91	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59
Architectural Coating	56.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading

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

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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Combined Winter Emissions Reports (Pounds/Day)

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	0.49	6.30	2.68	0.00	0.01	0.01	8,046.42
Hearth	0.27	4.58	1.95	0.03	0.37	0.37	5,848.24
Landscaping - No Winter Emissions							
Consumer Products	35.70						
Architectural Coatings	5.75						
TOTALS (lbs/day, unmitigated)	42.21	10.88	4.63	0.03	0.38	0.38	13,894.66

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

Percentage of residences with natural gas fireplaces changed from 55% to 100%

The number of persons per household for consumer product use changed from 2.861 persons to 2.59 persons

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	3.51	5.45	42.29	0.03	6.32	1.20	3,061.44
Apartments low rise	27.44	42.63	331.05	0.24	49.51	9.43	23,967.18
Condo/townhouse general	10.40	16.16	125.49	0.09	18.77	3.58	9,085.15
TOTALS (lbs/day, unmitigated)	41.35	64.24	498.83	0.36	74.60	14.21	36,113.77

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 40 Season: Winter

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
Single family housing	15.00	9.57	dwelling	45.00	430.65	3,681.93
Apartments low rise	33.50	6.29	dwelling	536.00	3,371.44	28,824.80
Condo/townhouse general	14.06	5.68	dwelling	225.00	1,278.00	10,926.52
					5,080.09	43,433.25

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Combined Winter Emissions Reports (Pounds/Day)

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.1	0.9	98.9	0.2
Light Truck < 3750 lbs	11.8	1.7	95.8	2.5
Light Truck 3751-5750 lbs	20.6	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	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	2.9	65.5	34.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

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)

Operational Changes to Defaults

URBEMIS2007 Proposed Project Emissions

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Combined Annual Emissions Reports (Tons/Year)

File Name: Z:\Alan Sako\966.01 Gallery at Central Park\Emissions\Gallery at Central Park Construction and Operational Emissions.urb924
Project Name: 900 Kiely Construction and Proposed Operation
Project Location: Santa Clara 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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (tons/year unmitigated)	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
2009 TOTALS (tons/year mitigated)	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010 TOTALS (tons/year unmitigated)	4.81	6.02	11.97	0.01	0.17	0.36	0.53	0.04	0.33	0.37	1,386.17
2010 TOTALS (tons/year mitigated)	4.81	6.02	11.97	0.01	0.10	0.36	0.46	0.03	0.33	0.35	1,386.17
Percent Reduction	0.00	0.00	0.00	0.00	39.87	0.00	12.85	33.44	0.00	3.83	0.00
2011 TOTALS (tons/year unmitigated)	7.61	4.66	11.37	0.01	0.05	0.27	0.32	0.02	0.24	0.26	1,374.45
2011 TOTALS (tons/year mitigated)	7.61	4.66	11.37	0.01	0.05	0.27	0.32	0.02	0.24	0.26	1,374.45
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	7.70	1.16	0.95	0.00	0.00	0.00	1,472.19
TOTALS (tons/year, mitigated)	7.69	0.99	0.88	0.00	0.00	0.00	1,251.92
Percent Reduction	0.13	14.66	7.37	0.00	0.00	0.00	14.96

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	7.58	9.07	87.90	0.08	13.62	2.59	7,283.68

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	15.28	10.23	88.85	0.08	13.62	2.59	8,755.87

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

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Combined Annual Emissions Reports (Tons/Year)

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
Demolition 06/01/2009-12/31/2009	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
Fugitive Dust	0.00	0.00	0.00	0.00	1.46	0.00	1.46	0.30	0.00	0.30	0.00
Demo Off Road Diesel	0.49	4.11	2.24	0.00	0.00	0.20	0.20	0.00	0.18	0.18	342.75
Demo On Road Diesel	0.10	1.72	0.54	0.00	0.01	0.06	0.07	0.00	0.06	0.06	226.76
Demo Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.79
2010	4.81	6.02	11.97	0.01	0.17	0.36	0.53	0.04	0.33	0.37	1,386.17
Mass Grading 01/01/2010-02/28/2010	0.06	0.51	0.28	0.00	0.12	0.03	0.15	0.03	0.02	0.05	48.16
Mass Grading Dust	0.00	0.00	0.00	0.00	0.12	0.00	0.12	0.03	0.00	0.03	0.00
Mass Grading Off Road Diesel	0.06	0.51	0.26	0.00	0.00	0.03	0.03	0.00	0.02	0.02	46.07
Mass 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
Mass Grading Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.09
Asphalt 03/01/2010-06/30/2010	0.15	0.82	0.50	0.00	0.00	0.07	0.07	0.00	0.06	0.06	70.92
Paving Off-Gas	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.13	0.75	0.41	0.00	0.00	0.07	0.07	0.00	0.06	0.06	55.99
Paving On Road Diesel	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.33
Paving Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.60
Building 03/01/2010-11/30/2011	0.84	4.69	11.13	0.01	0.05	0.26	0.31	0.02	0.24	0.26	1,262.64
Building Off Road Diesel	0.45	2.56	1.57	0.00	0.00	0.18	0.18	0.00	0.17	0.17	248.52
Building Vendor Trips	0.12	1.65	1.27	0.00	0.01	0.06	0.07	0.00	0.06	0.06	328.33
Building Worker Trips	0.27	0.47	8.29	0.01	0.03	0.02	0.05	0.01	0.01	0.03	685.79
Coating 07/01/2010-11/30/2011	3.76	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.46
Architectural Coating	3.75	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	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.46
2011	7.61	4.66	11.37	0.01	0.05	0.27	0.32	0.02	0.24	0.26	1,374.45
Building 03/01/2010-11/30/2011	0.84	4.65	11.28	0.01	0.05	0.27	0.31	0.02	0.24	0.26	1,366.41
Building Off Road Diesel	0.45	2.60	1.66	0.00	0.00	0.19	0.19	0.00	0.17	0.17	268.85
Building Vendor Trips	0.12	1.59	1.28	0.00	0.01	0.06	0.07	0.00	0.05	0.06	355.21
Building Worker Trips	0.27	0.47	8.33	0.01	0.04	0.02	0.06	0.01	0.02	0.03	742.35
Coating 07/01/2010-11/30/2011	6.77	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.04
Architectural Coating	6.77	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	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.04

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Combined Annual Emissions Reports (Tons/Year)

Phase Assumptions

Phase: Demolition 6/1/2009 - 12/31/2009 - Demolition of existing buildings
Building Volume Total (cubic feet): 6931079
Building Volume Daily (cubic feet): 52665.4
On Road Truck Travel (VMT): 731.46
Off-Road Equipment:
1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading
Total Acres Disturbed: 26
Maximum Daily Acreage Disturbed: 0.6
Fugitive Dust Level of Detail: Default
10 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 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 3/1/2010 - 6/30/2010 - Asphalt paving
Acres to be Paved: 15.64
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 6 hours per day
2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 3/1/2010 - 11/30/2011 - Building construction
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

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Combined Annual Emissions Reports (Tons/Year)

Phase: Architectural Coating 7/1/2010 - 11/30/2011 - Architectural coating
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 Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
Demolition 06/01/2009-12/31/2009	0.60	5.84	2.91	0.00	1.71	0.26	1.97	0.36	0.24	0.60	579.29
Fugitive Dust	0.00	0.00	0.00	0.00	1.46	0.00	1.46	0.30	0.00	0.30	0.00
Demo Off Road Diesel	0.49	4.11	2.24	0.00	0.00	0.20	0.20	0.00	0.18	0.18	342.75
Demo On Road Diesel	0.10	1.72	0.54	0.00	0.01	0.06	0.07	0.00	0.06	0.06	226.76
Demo Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.79
2010	4.81	6.02	11.97	0.01	0.10	0.36	0.46	0.03	0.33	0.35	1,386.17
Mass Grading 01/01/2010-02/28/2010	0.06	0.51	0.28	0.00	0.06	0.03	0.08	0.01	0.02	0.04	48.16
Mass Grading Dust	0.00	0.00	0.00	0.00	0.06	0.00	0.06	0.01	0.00	0.01	0.00
Mass Grading Off Road Diesel	0.06	0.51	0.26	0.00	0.00	0.03	0.03	0.00	0.02	0.02	46.07
Mass 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
Mass Grading Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.09
Asphalt 03/01/2010-06/30/2010	0.15	0.82	0.50	0.00	0.00	0.07	0.07	0.00	0.06	0.06	70.92
Paving Off-Gas	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.13	0.75	0.41	0.00	0.00	0.07	0.07	0.00	0.06	0.06	55.99
Paving On Road Diesel	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.33
Paving Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.60
Building 03/01/2010-11/30/2011	0.84	4.69	11.13	0.01	0.05	0.26	0.31	0.02	0.24	0.26	1,262.64
Building Off Road Diesel	0.45	2.56	1.57	0.00	0.00	0.18	0.18	0.00	0.17	0.17	248.52
Building Vendor Trips	0.12	1.65	1.27	0.00	0.01	0.06	0.07	0.00	0.06	0.06	328.33
Building Worker Trips	0.27	0.47	8.29	0.01	0.03	0.02	0.05	0.01	0.01	0.03	685.79
Coating 07/01/2010-11/30/2011	3.76	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.46
Architectural Coating	3.75	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	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.46

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Combined Annual Emissions Reports (Tons/Year)

2011	7.61	4.66	11.37	0.01	0.05	0.27	0.32	0.02	0.24	0.26	1,374.45
Building 03/01/2010-11/30/2011	0.84	4.65	11.28	0.01	0.05	0.27	0.31	0.02	0.24	0.26	1,366.41
Building Off Road Diesel	0.45	2.60	1.66	0.00	0.00	0.19	0.19	0.00	0.17	0.17	268.85
Building Vendor Trips	0.12	1.59	1.28	0.00	0.01	0.06	0.07	0.00	0.05	0.06	355.21
Building Worker Trips	0.27	0.47	8.33	0.01	0.04	0.02	0.06	0.01	0.02	0.03	742.35
Coating 07/01/2010-11/30/2011	6.77	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.04
Architectural Coating	6.77	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	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.04

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading

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

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.09	1.15	0.49	0.00	0.00	0.00	1,468.47
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	2.92
Landscape	0.05	0.01	0.46	0.00	0.00	0.00	0.80
Consumer Products	6.51						
Architectural Coatings	1.05						
TOTALS (tons/year, unmitigated)	7.70	1.16	0.95	0.00	0.00	0.00	1,472.19

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.08	0.98	0.42	0.00	0.00	0.00	1,248.20
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	2.92
Landscape	0.05	0.01	0.46	0.00	0.00	0.00	0.80
Consumer Products	6.51						
Architectural Coatings	1.05						
TOTALS (tons/year, mitigated)	7.69	0.99	0.88	0.00	0.00	0.00	1,251.92

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Combined Annual Emissions Reports (Tons/Year)

Area Source Mitigation Measures Selected

Mitigation Description	Percent Reduction
Residential Increase Energy Efficiency Beyond Title 24	15.00

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%
Percentage of residences with wood fireplaces changed from 10% to 0%
Percentage of residences with natural gas fireplaces changed from 55% to 100%
The number of persons per household for consumer product use changed from 2.861 persons to 2.59 persons

Operational Unmitigated Detail Report:
OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	0.61	0.77	7.45	0.01	1.15	0.22	617.45
Apartments low rise	5.03	6.02	58.34	0.05	9.04	1.72	4,833.87
Condo/townhouse general	1.94	2.28	22.11	0.02	3.43	0.65	1,832.36
TOTALS (tons/year, unmitigated)	7.58	9.07	87.90	0.08	13.62	2.59	7,283.68

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2011 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
Single family housing	15.00	9.57	dwelling units	45.00	430.65	3,681.93
Apartments low rise	33.50	6.29	dwelling units	536.00	3,371.44	28,824.80
Condo/townhouse general	14.06	5.68	dwelling units	225.00	1,278.00	10,926.52
					5,080.09	43,433.25

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Combined Annual Emissions Reports (Tons/Year)

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.1	0.9	98.9	0.2
Light Truck < 3750 lbs	11.8	1.7	95.8	2.5
Light Truck 3751-5750 lbs	20.6	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	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	2.9	65.5	34.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

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)

Operational Changes to Defaults

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Combined Summer Emissions Reports (Pounds/Day)

File Name: Z:\Alan Sako\966.01 Gallery at Central Park\Emissions\Gallery at Central Park Construction and Operational Emissions.urb924
Project Name: 900 Kiely Construction and Proposed Operation
Project Location: Santa Clara 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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (lbs/day unmitigated)	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
2009 TOTALS (lbs/day mitigated)	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
2010 TOTALS (lbs/day unmitigated)	64.57	61.26	112.58	0.09	6.00	3.94	7.26	1.25	3.61	3.76	13,090.26
2010 TOTALS (lbs/day mitigated)	64.57	61.26	112.58	0.09	2.70	3.94	4.37	0.57	3.61	3.76	13,090.26
2011 TOTALS (lbs/day unmitigated)	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
2011 TOTALS (lbs/day mitigated)	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	42.55	6.36	7.78	0.00	0.03	0.03	8,055.26
TOTALS (lbs/day, mitigated)	42.47	5.42	7.38	0.00	0.03	0.03	6,848.30
Percent Reduction	0.19	14.78	5.14	0.00	0.00	0.00	14.98

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	41.64	42.45	473.07	0.42	74.60	14.21	41,809.03

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	84.19	48.81	480.85	0.42	74.63	14.24	49,864.29

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

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Combined Summer Emissions Reports (Pounds/Day)

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 6/1/2009-12/31/2009 Active Days: 154	7.77	**75.90**	37.79	0.03	**22.23**	3.40	**25.63**	**4.64**	3.13	**7.77**	7,523.28
Demolition 06/01/2009-12/31/2009	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
Fugitive Dust	0.00	0.00	0.00	0.00	22.12	0.00	22.12	4.60	0.00	4.60	0.00
Demo Off Road Diesel	6.37	53.41	29.12	0.00	0.00	2.58	2.58	0.00	2.37	2.37	4,451.28
Demo On Road Diesel	1.34	22.40	7.02	0.03	0.10	0.82	0.92	0.03	0.76	0.79	2,944.88
Demo Worker Trips	0.06	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.12
Time Slice 1/1/2010-2/26/2010 Active Days: 41	3.04	25.06	13.69	0.00	6.00	1.25	7.26	1.25	1.15	2.41	2,349.07
Mass Grading 01/01/2010-02/28/2010	3.04	25.06	13.69	0.00	6.00	1.25	7.26	1.25	1.15	2.41	2,349.07
Mass Grading Dust	0.00	0.00	0.00	0.00	6.00	0.00	6.00	1.25	0.00	1.25	0.00
Mass Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Mass 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
Mass Grading Worker Trips	0.04	0.07	1.23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.75
Time Slice 3/1/2010-6/30/2010 Active Days: 88	11.12	61.26	**112.58**	**0.09**	0.43	**3.94**	4.37	0.15	**3.61**	3.76	**13,090.26**
Asphalt 03/01/2010-06/30/2010	3.46	18.66	11.37	0.00	0.01	1.56	1.57	0.00	1.43	1.44	1,611.71
Paving Off-Gas	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.86	17.13	9.38	0.00	0.00	1.50	1.50	0.00	1.38	1.38	1,272.41
Paving On Road Diesel	0.09	1.45	0.46	0.00	0.01	0.05	0.06	0.00	0.05	0.05	212.12
Paving Worker Trips	0.05	0.09	1.54	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.19
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Time Slice 7/1/2010-12/31/2010 Active Days: 132	**64.57**	42.65	102.02	0.09	0.42	2.39	2.81	0.15	2.18	2.33	11,546.10
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Coating 07/01/2010-11/30/2011	56.92	0.05	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Architectural Coating	56.89	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	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55

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Combined Summer Emissions Reports (Pounds/Day)

Time Slice 1/3/2011-11/30/2011 Active Days: 238	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
Building 03/01/2010-11/30/2011	7.05	39.08	94.75	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,482.44
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.01	13.33	10.78	0.03	0.11	0.49	0.60	0.04	0.45	0.49	2,984.93
Building Worker Trips	2.27	3.91	70.02	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,238.23
Coating 07/01/2010-11/30/2011	56.91	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59
Architectural Coating	56.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59

Phase Assumptions

Phase: Demolition 6/1/2009 - 12/31/2009 - Demolition of existing buildings
Building Volume Total (cubic feet): 6931079
Building Volume Daily (cubic feet): 52665.4
On Road Truck Travel (VMT): 731.46
Off-Road Equipment:
1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading
Total Acres Disturbed: 26
Maximum Daily Acreage Disturbed: 0.6
Fugitive Dust Level of Detail: Default
10 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 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 3/1/2010 - 6/30/2010 - Asphalt paving
Acres to be Paved: 15.64
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 6 hours per day
2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

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Combined Summer Emissions Reports (Pounds/Day)

Phase: Building Construction 3/1/2010 - 11/30/2011 - Building construction
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

Phase: Architectural Coating 7/1/2010 - 11/30/2011 - Architectural coating
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
Time Slice 6/1/2009-12/31/2009 Active Days: 154	7.77	**75.90**	37.79	0.03	**22.23**	3.40	**25.63**	**4.64**	3.13	**7.77**	7,523.28
Demolition 06/01/2009-12/31/2009	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
Fugitive Dust	0.00	0.00	0.00	0.00	22.12	0.00	22.12	4.60	0.00	4.60	0.00
Demo Off Road Diesel	6.37	53.41	29.12	0.00	0.00	2.58	2.58	0.00	2.37	2.37	4,451.28
Demo On Road Diesel	1.34	22.40	7.02	0.03	0.10	0.82	0.92	0.03	0.76	0.79	2,944.88
Demo Worker Trips	0.06	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.12
Time Slice 1/1/2010-2/26/2010 Active Days: 41	3.04	25.06	13.69	0.00	2.70	1.25	3.96	0.57	1.15	1.72	2,349.07
Mass Grading 01/01/2010-02/28/2010	3.04	25.06	13.69	0.00	2.70	1.25	3.96	0.57	1.15	1.72	2,349.07
Mass Grading Dust	0.00	0.00	0.00	0.00	2.70	0.00	2.70	0.56	0.00	0.56	0.00
Mass Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Mass 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
Mass Grading Worker Trips	0.04	0.07	1.23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.75

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Combined Summer Emissions Reports (Pounds/Day)

Time Slice 3/1/2010-6/30/2010 Active Days: 88	11.12	61.26	**112.58**	**0.09**	0.43	**3.94**	4.37	0.15	**3.61**	3.76	**13,090.26**
Asphalt 03/01/2010-06/30/2010	3.46	18.66	11.37	0.00	0.01	1.56	1.57	0.00	1.43	1.44	1,611.71
Paving Off-Gas	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.86	17.13	9.38	0.00	0.00	1.50	1.50	0.00	1.38	1.38	1,272.41
Paving On Road Diesel	0.09	1.45	0.46	0.00	0.01	0.05	0.06	0.00	0.05	0.05	212.12
Paving Worker Trips	0.05	0.09	1.54	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.19
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Time Slice 7/1/2010-12/31/2010 Active Days: 132	**64.57**	42.65	102.02	0.09	0.42	2.39	2.81	0.15	2.18	2.33	11,546.10
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Coating 07/01/2010-11/30/2011	56.92	0.05	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Architectural Coating	56.89	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	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Time Slice 1/3/2011-11/30/2011 Active Days: 238	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
Building 03/01/2010-11/30/2011	7.05	39.08	94.75	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,482.44
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.01	13.33	10.78	0.03	0.11	0.49	0.60	0.04	0.45	0.49	2,984.93
Building Worker Trips	2.27	3.91	70.02	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,238.23
Coating 07/01/2010-11/30/2011	56.91	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59
Architectural Coating	56.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading

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

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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Combined Summer Emissions Reports (Pounds/Day)

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	0.49	6.30	2.68	0.00	0.01	0.01	8,046.42
Hearth - No Summer Emissions							
Landscape	0.61	0.06	5.10	0.00	0.02	0.02	8.84
Consumer Products	35.70						
Architectural Coatings	5.75						
TOTALS (lbs/day, unmitigated)	42.55	6.36	7.78	0.00	0.03	0.03	8,055.26

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	0.41	5.36	2.28	0.00	0.01	0.01	6,839.46
Hearth - No Summer Emissions							
Landscape	0.61	0.06	5.10	0.00	0.02	0.02	8.84
Consumer Products	35.70						
Architectural Coatings	5.75						
TOTALS (lbs/day, mitigated)	42.47	5.42	7.38	0.00	0.03	0.03	6,848.30

Area Source Mitigation Measures Selected

Mitigation Description	Percent Reduction
Residential Increase Energy Efficiency Beyond Title 24	15.00

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

Percentage of residences with natural gas fireplaces changed from 55% to 100%

The number of persons per household for consumer product use changed from 2.861 persons to 2.59 persons

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	3.28	3.60	40.10	0.04	6.32	1.20	3,544.24
Apartments low rise	27.65	28.17	313.96	0.28	49.51	9.43	27,746.88
Condo/townhouse general	10.71	10.68	119.01	0.10	18.77	3.58	10,517.91
TOTALS (lbs/day, unmitigated)	41.64	42.45	473.07	0.42	74.60	14.21	41,809.03

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Combined Summer Emissions Reports (Pounds/Day)

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2011 Temperature (F): 85 Season: Summer
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
Single family housing	15.00	9.57	dwelling	45.00	430.65	3,681.93
Apartments low rise	33.50	6.29	dwelling	536.00	3,371.44	28,824.80
Condo/townhouse general	14.06	5.68	dwelling	225.00	1,278.00	10,926.52
					5,080.09	43,433.25

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.1	0.9	98.9	0.2
Light Truck < 3750 lbs	11.8	1.7	95.8	2.5
Light Truck 3751-5750 lbs	20.6	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	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	2.9	65.5	34.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

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)

Operational Changes to Defaults

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Combined Winter Emissions Reports (Pounds/Day)

File Name: Z:\Alan Sako\966.01 Gallery at Central Park\Emissions\Gallery at Central Park Construction and Operational Emissions.urb924
Project Name: 900 Kiely Construction and Proposed Operation
Project Location: Santa Clara 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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (lbs/day unmitigated)	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
2009 TOTALS (lbs/day mitigated)	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
2010 TOTALS (lbs/day unmitigated)	64.57	61.26	112.58	0.09	6.00	3.94	7.26	1.25	3.61	3.76	13,090.26
2010 TOTALS (lbs/day mitigated)	64.57	61.26	112.58	0.09	2.70	3.94	4.37	0.57	3.61	3.76	13,090.26
2011 TOTALS (lbs/day unmitigated)	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
2011 TOTALS (lbs/day mitigated)	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	42.21	10.88	4.63	0.03	0.38	0.38	13,894.66
TOTALS (lbs/day, mitigated)	42.13	9.94	4.23	0.03	0.38	0.38	12,687.70
Percent Reduction	0.19	8.64	8.64	0.00	0.00	0.00	8.69

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	41.35	64.24	498.83	0.36	74.60	14.21	36,113.77

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	83.56	75.12	503.46	0.39	74.98	14.59	50,008.43

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

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Combined Winter Emissions Reports (Pounds/Day)

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 6/1/2009-12/31/2009 Active Days: 154	7.77	**75.90**	37.79	0.03	**22.23**	3.40	**25.63**	**4.64**	3.13	**7.77**	7,523.28
Demolition 06/01/2009-12/31/2009	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
Fugitive Dust	0.00	0.00	0.00	0.00	22.12	0.00	22.12	4.60	0.00	4.60	0.00
Demo Off Road Diesel	6.37	53.41	29.12	0.00	0.00	2.58	2.58	0.00	2.37	2.37	4,451.28
Demo On Road Diesel	1.34	22.40	7.02	0.03	0.10	0.82	0.92	0.03	0.76	0.79	2,944.88
Demo Worker Trips	0.06	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.12
Time Slice 1/1/2010-2/26/2010 Active Days: 41	3.04	25.06	13.69	0.00	6.00	1.25	7.26	1.25	1.15	2.41	2,349.07
Mass Grading 01/01/2010-02/28/2010	3.04	25.06	13.69	0.00	6.00	1.25	7.26	1.25	1.15	2.41	2,349.07
Mass Grading Dust	0.00	0.00	0.00	0.00	6.00	0.00	6.00	1.25	0.00	1.25	0.00
Mass Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Mass 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
Mass Grading Worker Trips	0.04	0.07	1.23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.75
Time Slice 3/1/2010-6/30/2010 Active Days: 88	11.12	61.26	**112.58**	**0.09**	0.43	**3.94**	4.37	0.15	**3.61**	3.76	**13,090.26**
Asphalt 03/01/2010-06/30/2010	3.46	18.66	11.37	0.00	0.01	1.56	1.57	0.00	1.43	1.44	1,611.71
Paving Off-Gas	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.86	17.13	9.38	0.00	0.00	1.50	1.50	0.00	1.38	1.38	1,272.41
Paving On Road Diesel	0.09	1.45	0.46	0.00	0.01	0.05	0.06	0.00	0.05	0.05	212.12
Paving Worker Trips	0.05	0.09	1.54	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.19
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Time Slice 7/1/2010-12/31/2010 Active Days: 132	**64.57**	42.65	102.02	0.09	0.42	2.39	2.81	0.15	2.18	2.33	11,546.10
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Coating 07/01/2010-11/30/2011	56.92	0.05	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Architectural Coating	56.89	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	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55

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Combined Winter Emissions Reports (Pounds/Day)

Time Slice 1/3/2011-11/30/2011 Active Days: 238	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
Building 03/01/2010-11/30/2011	7.05	39.08	94.75	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,482.44
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.01	13.33	10.78	0.03	0.11	0.49	0.60	0.04	0.45	0.49	2,984.93
Building Worker Trips	2.27	3.91	70.02	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,238.23
Coating 07/01/2010-11/30/2011	56.91	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59
Architectural Coating	56.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59

Phase Assumptions

Phase: Demolition 6/1/2009 - 12/31/2009 - Demolition of existing buildings
Building Volume Total (cubic feet): 6931079
Building Volume Daily (cubic feet): 52665.4
On Road Truck Travel (VMT): 731.46
Off-Road Equipment:
1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading
Total Acres Disturbed: 26
Maximum Daily Acreage Disturbed: 0.6
Fugitive Dust Level of Detail: Default
10 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 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 3/1/2010 - 6/30/2010 - Asphalt paving
Acres to be Paved: 15.64
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 6 hours per day
2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

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Combined Winter Emissions Reports (Pounds/Day)

Phase: Building Construction 3/1/2010 - 11/30/2011 - Building construction
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

Phase: Architectural Coating 7/1/2010 - 11/30/2011 - Architectural coating
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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 6/1/2009-12/31/2009 Active Days: 154	7.77	**75.90**	37.79	0.03	**22.23**	3.40	**25.63**	**4.64**	3.13	**7.77**	7,523.28
Demolition 06/01/2009-12/31/2009	7.77	75.90	37.79	0.03	22.23	3.40	25.63	4.64	3.13	7.77	7,523.28
Fugitive Dust	0.00	0.00	0.00	0.00	22.12	0.00	22.12	4.60	0.00	4.60	0.00
Demo Off Road Diesel	6.37	53.41	29.12	0.00	0.00	2.58	2.58	0.00	2.37	2.37	4,451.28
Demo On Road Diesel	1.34	22.40	7.02	0.03	0.10	0.82	0.92	0.03	0.76	0.79	2,944.88
Demo Worker Trips	0.06	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.12
Time Slice 1/1/2010-2/26/2010 Active Days: 41	3.04	25.06	13.69	0.00	2.70	1.25	3.96	0.57	1.15	1.72	2,349.07
Mass Grading 01/01/2010-02/28/2010	3.04	25.06	13.69	0.00	2.70	1.25	3.96	0.57	1.15	1.72	2,349.07
Mass Grading Dust	0.00	0.00	0.00	0.00	2.70	0.00	2.70	0.56	0.00	0.56	0.00
Mass Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Mass 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
Mass Grading Worker Trips	0.04	0.07	1.23	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.75
Time Slice 3/1/2010-6/30/2010 Active Days: 88	11.12	61.26	**112.58**	**0.09**	0.43	**3.94**	4.37	0.15	**3.61**	3.76	**13,090.26**
Asphalt 03/01/2010-06/30/2010	3.46	18.66	11.37	0.00	0.01	1.56	1.57	0.00	1.43	1.44	1,611.71
Paving Off-Gas	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.86	17.13	9.38	0.00	0.00	1.50	1.50	0.00	1.38	1.38	1,272.41
Paving On Road Diesel	0.09	1.45	0.46	0.00	0.01	0.05	0.06	0.00	0.05	0.05	212.12
Paving Worker Trips	0.05	0.09	1.54	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.19
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86

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Combined Winter Emissions Reports (Pounds/Day)

Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Time Slice 7/1/2010-12/31/2010 Active Days: 132	**64.57**	42.65	102.02	0.09	0.42	2.39	2.81	0.15	2.18	2.33	11,546.10
Building 03/01/2010-11/30/2011	7.66	42.60	101.21	0.09	0.42	2.39	2.80	0.15	2.18	2.33	11,478.55
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	1.10	15.03	11.55	0.03	0.11	0.55	0.66	0.04	0.51	0.54	2,984.86
Building Worker Trips	2.48	4.26	75.34	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,234.41
Coating 07/01/2010-11/30/2011	56.92	0.05	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Architectural Coating	56.89	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	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.55
Time Slice 1/3/2011-11/30/2011 Active Days: 238	63.96	39.13	95.51	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,550.04
Building 03/01/2010-11/30/2011	7.05	39.08	94.75	0.09	0.42	2.23	2.65	0.15	2.03	2.18	11,482.44
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.01	13.33	10.78	0.03	0.11	0.49	0.60	0.04	0.45	0.49	2,984.93
Building Worker Trips	2.27	3.91	70.02	0.06	0.31	0.17	0.47	0.11	0.14	0.25	6,238.23
Coating 07/01/2010-11/30/2011	56.91	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59
Architectural Coating	56.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	67.59

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/1/2010 - 2/28/2010 - Mass site grading

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

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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	0.49	6.30	2.68	0.00	0.01	0.01	8,046.42
Hearth	0.27	4.58	1.95	0.03	0.37	0.37	5,848.24
Landscaping - No Winter Emissions							
Consumer Products	35.70						
Architectural Coatings	5.75						
TOTALS (lbs/day, unmitigated)	42.21	10.88	4.63	0.03	0.38	0.38	13,894.66

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Combined Winter Emissions Reports (Pounds/Day)

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	0.41	5.36	2.28	0.00	0.01	0.01	6,839.46
Hearth	0.27	4.58	1.95	0.03	0.37	0.37	5,848.24
Landscaping - No Winter Emissions							
Consumer Products	35.70						
Architectural Coatings	5.75						
TOTALS (lbs/day, mitigated)	42.13	9.94	4.23	0.03	0.38	0.38	12,687.70

Area Source Mitigation Measures Selected

Mitigation Description	Percent Reduction
Residential Increase Energy Efficiency Beyond Title 24	15.00

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

Percentage of residences with natural gas fireplaces changed from 55% to 100%

The number of persons per household for consumer product use changed from 2.861 persons to 2.59 persons

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	3.51	5.45	42.29	0.03	6.32	1.20	3,061.44
Apartments low rise	27.44	42.63	331.05	0.24	49.51	9.43	23,967.18
Condo/townhouse general	10.40	16.16	125.49	0.09	18.77	3.58	9,085.15
TOTALS (lbs/day, unmitigated)	41.35	64.24	498.83	0.36	74.60	14.21	36,113.77

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 40 Season: Winter

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
Single family housing	15.00	9.57	dwelling	45.00	430.65	3,681.93
Apartments low rise	33.50	6.29	dwelling	536.00	3,371.44	28,824.80
Condo/townhouse general	14.06	5.68	dwelling	225.00	1,278.00	10,926.52
					5,080.09	43,433.25

9/4/2008 08:28:08 PM

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.1	0.9	98.9	0.2
Light Truck < 3750 lbs	11.8	1.7	95.8	2.5
Light Truck 3751-5750 lbs	20.6	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	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	2.9	65.5	34.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

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)

Operational Changes to Defaults

CO Hotspots Analysis

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS; UPDATED WITH EMFAC2007

Project Title:	Gallery at Central Park
Intersection:	Bowers Ave and El Camino Real
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	910 Ticonderoga Drive Sunnyvale, CA 94087
Background 1-hour CO Concentration (ppm):	7.5
Background 8-hour CO Concentration (ppm):	4.5
Persistence Factor:	0.7
Analysis Year:	2030

		Roadway Type	No. of Lanes	Approach/Departure Speed A.M.	Approach/Departure Speed P.M.
North-South Roadway:	Bowers Avenue	AT GRADE	4	5	5
East-West Roadway:	El Camino Real	AT GRADE	6	5	5

EMFAC2002 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Ar County: All

Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

	Average Speed (miles per hour)									
Year	5	8	11	14	17	20	23	26	29	32
2007	10.404	9.093	8.058	7.231	6.563	6.024	5.588	5.23	4.936	4.7
2008	9.453	8.28	7.351	6.607	6.005	5.518	5.124	4.799	4.532	4.316
2009	8.51	7.471	6.646	5.984	5.448	5.012	4.66	4.367	4.126	3.929
2010	7.609	6.699	5.976	5.392	4.918	4.532	4.219	3.958	3.741	3.564
2011	6.831	6.032	5.393	4.877	4.456	4.113	3.833	3.599	3.404	3.243
2012	6.141	5.437	4.874	4.416	4.042	3.737	3.487	3.277	3.101	2.955
2013	5.528	4.909	4.411	4.005	3.673	3.4	3.177	2.988	2.83	2.697
2014	4.98	4.435	3.995	3.635	3.339	3.097	2.897	2.728	2.584	2.464
2015	4.502	4.021	3.63	3.311	3.047	2.829	2.65	2.497	2.368	2.258
2020	2.909	2.632	2.402	2.21	2.05	1.917	1.805	1.708	1.624	1.552
2025	2.144	1.95	1.789	1.653	1.539	1.444	1.364	1.294	1.233	1.181
2030	1.756	1.601	1.472	1.363	1.271	1.195	1.131	1.075	1.027	0.985

PEAK HOUR TURNING VOLUMES

A.M. Peak

	N			
		84	277	100
W		<	v	>
252	^			^
912	>			<
148	v			v
		<	^	>
		196	1,048	189
	S			
				E
				90
				805
				156

P.M. Peak

	N			
		248	953	251
W		<	v	>
192	^			^
1,268	>			<
308	v			v
		<	^	>
		265	427	166
	S			
				E
				109
				1,306
				308

Representative Traffic Volumes (Vehicles per Hour)

N-S Road	2,014	N-S Road	2,427
E-W Road	2,397	E-W Road	3,587
Primary Road =	E-W Road	Primary Road =	E-W Road

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 0 Feet	25 Feet	50 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	3.3	2.6	2.2	*	2,014	*	1.76	÷	100,000
E-W Road	9.5	6.1	4.9	*	2,397	*	1.76	÷	100,000
P.M. Peak Hour									
N-S Road	3.3	2.6	2.2	*	2,427	*	1.76	÷	100,000
E-W Road	9.5	6.1	4.9	*	3,587	*	1.76	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
0 Feet from Roadway Edge	8.0	8.2	5.0
25 Feet from Roadway Edge	7.8	8.0	4.8
50 Feet from Roadway Edge	7.8	7.9	4.8

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS; UPDATED WITH EMFAC2007

Project Title:	Gallery at Central Park
Intersection:	Kiely Blvd and Stevens Creek Blvd
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	910 Ticonderoga Drive Sunnyvale, CA 94087
Background 1-hour CO Concentration (ppm):	7.5
Background 8-hour CO Concentration (ppm):	4.5
Persistence Factor:	0.7
Analysis Year:	2030

		Roadway Type	No. of Lanes	Approach/Departure Speed A.M.	Approach/Departure Speed P.M.
North-South Roadway:	Kiely Boulevard	AT GRADE	2	5	5
East-West Roadway:	Stevens Creek Boulevard	AT GRADE	2	5	5

EMFAC2002 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Ar County: All

Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

	Average Speed (miles per hour)									
Year	5	8	11	14	17	20	23	26	29	32
2007	10.404	9.093	8.058	7.231	6.563	6.024	5.588	5.23	4.936	4.7
2008	9.453	8.28	7.351	6.607	6.005	5.518	5.124	4.799	4.532	4.316
2009	8.51	7.471	6.646	5.984	5.448	5.012	4.66	4.367	4.126	3.929
2010	7.609	6.699	5.976	5.392	4.918	4.532	4.219	3.958	3.741	3.564
2011	6.831	6.032	5.393	4.877	4.456	4.113	3.833	3.599	3.404	3.243
2012	6.141	5.437	4.874	4.416	4.042	3.737	3.487	3.277	3.101	2.955
2013	5.528	4.909	4.411	4.005	3.673	3.4	3.177	2.988	2.83	2.697
2014	4.98	4.435	3.995	3.635	3.339	3.097	2.897	2.728	2.584	2.464
2015	4.502	4.021	3.63	3.311	3.047	2.829	2.65	2.497	2.368	2.258
2020	2.909	2.632	2.402	2.21	2.05	1.917	1.805	1.708	1.624	1.552
2025	2.144	1.95	1.789	1.653	1.539	1.444	1.364	1.294	1.233	1.181
2030	1.756	1.601	1.472	1.363	1.271	1.195	1.131	1.075	1.027	0.985

PEAK HOUR TURNING VOLUMES

A.M. Peak

N				
	120	319	77	
W	<	v	>	E
118 ^			^	186
275 >			<	1,062
136 v			v	41
	<	^	>	
	132	417	80	
S				

P.M. Peak

N				
	146	529	165	
W	<	v	>	E
163 ^			^	116
937 >			<	813
129 v			v	58
	<	^	>	
	125	396	77	
S				

Representative Traffic Volumes (Vehicles per Hour)

N-S Road	1,237	N-S Road	1,515
E-W Road	1,843	E-W Road	2,313
Primary Road =	E-W Road	Primary Road =	E-W Road

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 0 Feet	25 Feet	50 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	3.7	2.7	2.2	*	1,237	*	1.76	÷	100,000
E-W Road	14.0	7.6	5.7	*	1,843	*	1.76	÷	100,000
P.M. Peak Hour									
N-S Road	3.7	2.7	2.2	*	1,515	*	1.76	÷	100,000
E-W Road	14.0	7.6	5.7	*	2,313	*	1.76	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
0 Feet from Roadway Edge	8.0	8.2	5.0
25 Feet from Roadway Edge	7.8	7.9	4.8
50 Feet from Roadway Edge	7.7	7.8	4.7

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS; UPDATED WITH EMFAC2007

Project Title:	Gallery at Central Park
Intersection:	Lawrence Expwy and Benton St
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	910 Ticonderoga Drive Sunnyvale, CA 94087
Background 1-hour CO Concentration (ppm):	7.5
Background 8-hour CO Concentration (ppm):	4.5
Persistence Factor:	0.7
Analysis Year:	2030

		Roadway Type	No. of Lanes	Approach/Departure Speed A.M.	Approach/Departure Speed P.M.
North-South Roadway:	Lawrence Expressway	AT GRADE	8	5	5
East-West Roadway:	Benton Street	AT GRADE	4	5	5

EMFAC2002 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Ar County: All

Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

	Average Speed (miles per hour)									
Year	5	8	11	14	17	20	23	26	29	32
2007	10.404	9.093	8.058	7.231	6.563	6.024	5.588	5.23	4.936	4.7
2008	9.453	8.28	7.351	6.607	6.005	5.518	5.124	4.799	4.532	4.316
2009	8.51	7.471	6.646	5.984	5.448	5.012	4.66	4.367	4.126	3.929
2010	7.609	6.699	5.976	5.392	4.918	4.532	4.219	3.958	3.741	3.564
2011	6.831	6.032	5.393	4.877	4.456	4.113	3.833	3.599	3.404	3.243
2012	6.141	5.437	4.874	4.416	4.042	3.737	3.487	3.277	3.101	2.955
2013	5.528	4.909	4.411	4.005	3.673	3.4	3.177	2.988	2.83	2.697
2014	4.98	4.435	3.995	3.635	3.339	3.097	2.897	2.728	2.584	2.464
2015	4.502	4.021	3.63	3.311	3.047	2.829	2.65	2.497	2.368	2.258
2020	2.909	2.632	2.402	2.21	2.05	1.917	1.805	1.708	1.624	1.552
2025	2.144	1.95	1.789	1.653	1.539	1.444	1.364	1.294	1.233	1.181
2030	1.756	1.601	1.472	1.363	1.271	1.195	1.131	1.075	1.027	0.985

PEAK HOUR TURNING VOLUMES

A.M. Peak

	N			
		30	2,056	157
W		<	v	>
162	^			^
181	>			<
98	v			v
		<	^	>
		45	3,707	125
	S			
				E
				272
				158
				216

P.M. Peak

	N			
		57	3,658	211
W		<	v	>
47	^			^
108	>			<
92	v			v
		<	^	>
		93	1,969	196
	S			
				E
				94
				176
				189

Representative Traffic Volumes (Vehicles per Hour)

N-S Road	6,384	N-S Road	6,197
E-W Road	1,109	E-W Road	974
Primary Road =	N-S Road	Primary Road =	N-S Road

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 0 Feet	25 Feet	50 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	8.5	5.7	4.6	*	6,384	*	1.76	÷	100,000
E-W Road	3.3	2.6	2.2	*	1,109	*	1.76	÷	100,000
P.M. Peak Hour									
N-S Road	8.5	5.7	4.6	*	6,197	*	1.76	÷	100,000
E-W Road	3.3	2.6	2.2	*	974	*	1.76	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
0 Feet from Roadway Edge	8.5	8.5	5.2
25 Feet from Roadway Edge	8.2	8.2	5.0
50 Feet from Roadway Edge	8.1	8.0	4.9

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS; UPDATED WITH EMFAC2007

Project Title:	Gallery at Central Park
Intersection:	Lawrence Expwy and Homestead Rd
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	910 Ticonderoga Drive Sunnyvale, CA 94087
Background 1-hour CO Concentration (ppm):	7.5
Background 8-hour CO Concentration (ppm):	4.5
Persistence Factor:	0.7
Analysis Year:	2030

		Roadway Type	No. of Lanes	Approach/Departure Speed A.M.	Approach/Departure Speed P.M.
North-South Roadway:	Lawrence Expressway	AT GRADE	2	5	5
East-West Roadway:	Homestead Road	AT GRADE	2	5	5

EMFAC2002 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Ar County: All

Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

	Average Speed (miles per hour)									
Year	5	8	11	14	17	20	23	26	29	32
2007	10.404	9.093	8.058	7.231	6.563	6.024	5.588	5.23	4.936	4.7
2008	9.453	8.28	7.351	6.607	6.005	5.518	5.124	4.799	4.532	4.316
2009	8.51	7.471	6.646	5.984	5.448	5.012	4.66	4.367	4.126	3.929
2010	7.609	6.699	5.976	5.392	4.918	4.532	4.219	3.958	3.741	3.564
2011	6.831	6.032	5.393	4.877	4.456	4.113	3.833	3.599	3.404	3.243
2012	6.141	5.437	4.874	4.416	4.042	3.737	3.487	3.277	3.101	2.955
2013	5.528	4.909	4.411	4.005	3.673	3.4	3.177	2.988	2.83	2.697
2014	4.98	4.435	3.995	3.635	3.339	3.097	2.897	2.728	2.584	2.464
2015	4.502	4.021	3.63	3.311	3.047	2.829	2.65	2.497	2.368	2.258
2020	2.909	2.632	2.402	2.21	2.05	1.917	1.805	1.708	1.624	1.552
2025	2.144	1.95	1.789	1.653	1.539	1.444	1.364	1.294	1.233	1.181
2030	1.756	1.601	1.472	1.363	1.271	1.195	1.131	1.075	1.027	0.985

PEAK HOUR TURNING VOLUMES

A.M. Peak

	N				
		208	1,633	141	
W		<	v	>	E
318	^			^	249
388	>			<	639
133	v			v	395
		<	^	>	
		177	3,289	216	
	S				

P.M. Peak

	N				
		242	3,468	289	
W		<	v	>	E
488	^			^	130
795	>			<	601
299	v			v	419
		<	^	>	
		200	1,829	411	
	S				

Representative Traffic Volumes (Vehicles per Hour)

N-S Road	5,843	N-S Road	6,626
E-W Road	2,028	E-W Road	2,645
Primary Road =	N-S Road	Primary Road =	N-S Road

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 0 Feet	25 Feet	50 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	14.0	7.6	5.7	*	5,843	*	1.76	÷	100,000
E-W Road	3.7	2.7	2.2	*	2,028	*	1.76	÷	100,000
P.M. Peak Hour									
N-S Road	14.0	7.6	5.7	*	6,626	*	1.76	÷	100,000
E-W Road	3.7	2.7	2.2	*	2,645	*	1.76	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
0 Feet from Roadway Edge	9.1	9.3	5.8
25 Feet from Roadway Edge	8.4	8.5	5.2
50 Feet from Roadway Edge	8.2	8.3	5.0

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS; UPDATED WITH EMFAC2007

Project Title:	Gallery at Central Park
Intersection:	Lawrence Expwy and Pruneridge Ave
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	910 Ticonderoga Drive Sunnyvale, CA 94087
Background 1-hour CO Concentration (ppm):	7.5
Background 8-hour CO Concentration (ppm):	4.5
Persistence Factor:	0.7
Analysis Year:	2030

		Roadway Type	No. of Lanes	Approach/Departure Speed A.M.	Approach/Departure Speed P.M.
North-South Roadway:	Lawrence Expressway	AT GRADE	8	5	5
East-West Roadway:	Pruneridge Avenue	AT GRADE	4	5	5

EMFAC2002 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Ar County: All

Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

	Average Speed (miles per hour)									
Year	5	8	11	14	17	20	23	26	29	32
2007	10.404	9.093	8.058	7.231	6.563	6.024	5.588	5.23	4.936	4.7
2008	9.453	8.28	7.351	6.607	6.005	5.518	5.124	4.799	4.532	4.316
2009	8.51	7.471	6.646	5.984	5.448	5.012	4.66	4.367	4.126	3.929
2010	7.609	6.699	5.976	5.392	4.918	4.532	4.219	3.958	3.741	3.564
2011	6.831	6.032	5.393	4.877	4.456	4.113	3.833	3.599	3.404	3.243
2012	6.141	5.437	4.874	4.416	4.042	3.737	3.487	3.277	3.101	2.955
2013	5.528	4.909	4.411	4.005	3.673	3.4	3.177	2.988	2.83	2.697
2014	4.98	4.435	3.995	3.635	3.339	3.097	2.897	2.728	2.584	2.464
2015	4.502	4.021	3.63	3.311	3.047	2.829	2.65	2.497	2.368	2.258
2020	2.909	2.632	2.402	2.21	2.05	1.917	1.805	1.708	1.624	1.552
2025	2.144	1.95	1.789	1.653	1.539	1.444	1.364	1.294	1.233	1.181
2030	1.756	1.601	1.472	1.363	1.271	1.195	1.131	1.075	1.027	0.985

PEAK HOUR TURNING VOLUMES

A.M. Peak

	N				
		125	1,846	98	
W		<	v	>	E
165	^			^	248
251	>			<	672
130	v			v	503
		<	^	>	
		255	3,882	148	
	S				

P.M. Peak

	N				
		200	3,767	320	
W		<	v	>	E
137	^			^	100
240	>			<	189
183	v			v	255
		<	^	>	
		182	1,961	247	
	S				

Representative Traffic Volumes (Vehicles per Hour)

N-S Road	6,764	N-S Road	6,595
E-W Road	1,920	E-W Road	1,351
Primary Road =	N-S Road	Primary Road =	N-S Road

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 0 Feet	25 Feet	50 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	8.5	5.7	4.6	*	6,764	*	1.76	÷	100,000
E-W Road	3.3	2.6	2.2	*	1,920	*	1.76	÷	100,000
P.M. Peak Hour									
N-S Road	8.5	5.7	4.6	*	6,595	*	1.76	÷	100,000
E-W Road	3.3	2.6	2.2	*	1,351	*	1.76	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
0 Feet from Roadway Edge	8.6	8.6	5.3
25 Feet from Roadway Edge	8.3	8.2	5.0
50 Feet from Roadway Edge	8.1	8.1	4.9

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS; UPDATED WITH EMFAC2007

Project Title:	Gallery at Central Park
Intersection:	San Tomas Expwy and Benton St
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	910 Ticonderoga Drive Sunnyvale, CA 94087
Background 1-hour CO Concentration (ppm):	7.5
Background 8-hour CO Concentration (ppm):	4.5
Persistence Factor:	0.7
Analysis Year:	2030

		Roadway Type	No. of Lanes	Approach/Departure Speed A.M.	Approach/Departure Speed P.M.
North-South Roadway:	San Tomas Expressway	AT GRADE	2	5	5
East-West Roadway:	Benton Street	AT GRADE	2	5	5

EMFAC2002 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Ar County: All

Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

	Average Speed (miles per hour)									
Year	5	8	11	14	17	20	23	26	29	32
2007	10.404	9.093	8.058	7.231	6.563	6.024	5.588	5.23	4.936	4.7
2008	9.453	8.28	7.351	6.607	6.005	5.518	5.124	4.799	4.532	4.316
2009	8.51	7.471	6.646	5.984	5.448	5.012	4.66	4.367	4.126	3.929
2010	7.609	6.699	5.976	5.392	4.918	4.532	4.219	3.958	3.741	3.564
2011	6.831	6.032	5.393	4.877	4.456	4.113	3.833	3.599	3.404	3.243
2012	6.141	5.437	4.874	4.416	4.042	3.737	3.487	3.277	3.101	2.955
2013	5.528	4.909	4.411	4.005	3.673	3.4	3.177	2.988	2.83	2.697
2014	4.98	4.435	3.995	3.635	3.339	3.097	2.897	2.728	2.584	2.464
2015	4.502	4.021	3.63	3.311	3.047	2.829	2.65	2.497	2.368	2.258
2020	2.909	2.632	2.402	2.21	2.05	1.917	1.805	1.708	1.624	1.552
2025	2.144	1.95	1.789	1.653	1.539	1.444	1.364	1.294	1.233	1.181
2030	1.756	1.601	1.472	1.363	1.271	1.195	1.131	1.075	1.027	0.985

PEAK HOUR TURNING VOLUMES

A.M. Peak

N				
	139	1,028	29	
W	<	v	>	E
249 ^			^	127
239 >			<	232
99 v			v	63
	<	^	>	
	56	3,738	11	
S				

P.M. Peak

N				
	181	3,493	64	
W	<	v	>	E
160 ^			^	75
314 >			<	217
136 v			v	59
	<	^	>	
	146	1,266	39	
S				

Representative Traffic Volumes (Vehicles per Hour)

N-S Road	5,310	N-S Road	5,239
E-W Road	1,014	E-W Road	1,154
Primary Road =	N-S Road	Primary Road =	N-S Road

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 0 Feet	25 Feet	50 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	14.0	7.6	5.7	*	5,310	*	1.76	÷	100,000
E-W Road	3.7	2.7	2.2	*	1,014	*	1.76	÷	100,000
P.M. Peak Hour									
N-S Road	14.0	7.6	5.7	*	5,239	*	1.76	÷	100,000
E-W Road	3.7	2.7	2.2	*	1,154	*	1.76	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
0 Feet from Roadway Edge	8.9	8.9	5.5
25 Feet from Roadway Edge	8.3	8.3	5.0
50 Feet from Roadway Edge	8.1	8.1	4.9

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS; UPDATED WITH EMFAC2007

Project Title:	Gallery at Central Park
Intersection:	San Tomas Expwy and El Camino Real
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	910 Ticonderoga Drive Sunnyvale, CA 94087
Background 1-hour CO Concentration (ppm):	7.5
Background 8-hour CO Concentration (ppm):	4.5
Persistence Factor:	0.7
Analysis Year:	2030

		Roadway Type	No. of Lanes	Approach/Departure Speed A.M.	Approach/Departure Speed P.M.
North-South Roadway:	San Tomas Expressway	AT GRADE	2	5	5
East-West Roadway:	El Camino Real	AT GRADE	2	5	5

EMFAC2002 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Ar County: All

Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

	Average Speed (miles per hour)									
Year	5	8	11	14	17	20	23	26	29	32
2007	10.404	9.093	8.058	7.231	6.563	6.024	5.588	5.23	4.936	4.7
2008	9.453	8.28	7.351	6.607	6.005	5.518	5.124	4.799	4.532	4.316
2009	8.51	7.471	6.646	5.984	5.448	5.012	4.66	4.367	4.126	3.929
2010	7.609	6.699	5.976	5.392	4.918	4.532	4.219	3.958	3.741	3.564
2011	6.831	6.032	5.393	4.877	4.456	4.113	3.833	3.599	3.404	3.243
2012	6.141	5.437	4.874	4.416	4.042	3.737	3.487	3.277	3.101	2.955
2013	5.528	4.909	4.411	4.005	3.673	3.4	3.177	2.988	2.83	2.697
2014	4.98	4.435	3.995	3.635	3.339	3.097	2.897	2.728	2.584	2.464
2015	4.502	4.021	3.63	3.311	3.047	2.829	2.65	2.497	2.368	2.258
2020	2.909	2.632	2.402	2.21	2.05	1.917	1.805	1.708	1.624	1.552
2025	2.144	1.95	1.789	1.653	1.539	1.444	1.364	1.294	1.233	1.181
2030	1.756	1.601	1.472	1.363	1.271	1.195	1.131	1.075	1.027	0.985

PEAK HOUR TURNING VOLUMES

A.M. Peak

	N				
		363	817	158	
W		<	v	>	E
678	^			^	357
915	>			<	574
138	v			v	133
		<	^	>	
		232	3,689	138	
	S				

P.M. Peak

	N				
		265	3,268	303	
W		<	v	>	E
379	^			^	131
884	>			<	944
199	v			v	283
		<	^	>	
		185	1,037	215	
	S				

Representative Traffic Volumes (Vehicles per Hour)

N-S Road	6,062	N-S Road	5,383
E-W Road	2,900	E-W Road	2,856
Primary Road =	N-S Road	Primary Road =	N-S Road

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 0 Feet	25 Feet	50 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	14.0	7.6	5.7	*	6,062	*	1.76	÷	100,000
E-W Road	3.7	2.7	2.2	*	2,900	*	1.76	÷	100,000
P.M. Peak Hour									
N-S Road	14.0	7.6	5.7	*	5,383	*	1.76	÷	100,000
E-W Road	3.7	2.7	2.2	*	2,856	*	1.76	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
0 Feet from Roadway Edge	9.2	9.0	5.7
25 Feet from Roadway Edge	8.4	8.4	5.2
50 Feet from Roadway Edge	8.2	8.1	5.0

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS; UPDATED WITH EMFAC2007

Project Title:	Gallery at Central Park
Intersection:	San Tomas Expwy and Homestead Rd
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	910 Ticonderoga Drive Sunnyvale, CA 94087
Background 1-hour CO Concentration (ppm):	7.5
Background 8-hour CO Concentration (ppm):	4.5
Persistence Factor:	0.7
Analysis Year:	2030

		Roadway Type	No. of Lanes	Approach/Departure Speed A.M.	Approach/Departure Speed P.M.
North-South Roadway:	San Tomas Expressway	AT GRADE	2	5	5
East-West Roadway:	Homestead Road	AT GRADE	2	5	5

EMFAC2002 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Ar County: All

Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

	Average Speed (miles per hour)									
Year	5	8	11	14	17	20	23	26	29	32
2007	10.404	9.093	8.058	7.231	6.563	6.024	5.588	5.23	4.936	4.7
2008	9.453	8.28	7.351	6.607	6.005	5.518	5.124	4.799	4.532	4.316
2009	8.51	7.471	6.646	5.984	5.448	5.012	4.66	4.367	4.126	3.929
2010	7.609	6.699	5.976	5.392	4.918	4.532	4.219	3.958	3.741	3.564
2011	6.831	6.032	5.393	4.877	4.456	4.113	3.833	3.599	3.404	3.243
2012	6.141	5.437	4.874	4.416	4.042	3.737	3.487	3.277	3.101	2.955
2013	5.528	4.909	4.411	4.005	3.673	3.4	3.177	2.988	2.83	2.697
2014	4.98	4.435	3.995	3.635	3.339	3.097	2.897	2.728	2.584	2.464
2015	4.502	4.021	3.63	3.311	3.047	2.829	2.65	2.497	2.368	2.258
2020	2.909	2.632	2.402	2.21	2.05	1.917	1.805	1.708	1.624	1.552
2025	2.144	1.95	1.789	1.653	1.539	1.444	1.364	1.294	1.233	1.181
2030	1.756	1.601	1.472	1.363	1.271	1.195	1.131	1.075	1.027	0.985

PEAK HOUR TURNING VOLUMES

A.M. Peak

	N			
		213	732	40
W		<	v	>
222	^			^
368	>			<
165	v			v
		<	^	>
		240	2,732	57
	S			

				E
				73
				392
				66

P.M. Peak

	N			
		256	3,280	111
W		<	v	>
259	^			^
590	>			<
241	v			v
		<	^	>
		300	1,096	59
	S			

				E
				42
				478
				79

Representative Traffic Volumes (Vehicles per Hour)

N-S Road	4,012	N-S Road	5,055
E-W Road	1,600	E-W Road	2,124
Primary Road =	N-S Road	Primary Road =	N-S Road

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 0 Feet	25 Feet	50 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	14.0	7.6	5.7	*	4,012	*	1.76	÷	100,000
E-W Road	3.7	2.7	2.2	*	1,600	*	1.76	÷	100,000
P.M. Peak Hour									
N-S Road	14.0	7.6	5.7	*	5,055	*	1.76	÷	100,000
E-W Road	3.7	2.7	2.2	*	2,124	*	1.76	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
0 Feet from Roadway Edge	8.6	8.9	5.5
25 Feet from Roadway Edge	8.1	8.3	5.0
50 Feet from Roadway Edge	8.0	8.1	4.9

BAY AREA AQMD SIMPLIFIED CALINE4 ANALYSIS; UPDATED WITH EMFAC2007

Project Title:	Gallery at Central Park
Intersection:	Saratoga Ave and Kiely Blvd
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	910 Ticonderoga Drive Sunnyvale, CA 94087
Background 1-hour CO Concentration (ppm):	7.5
Background 8-hour CO Concentration (ppm):	4.5
Persistence Factor:	0.7
Analysis Year:	2030

		Roadway Type	No. of Lanes	Approach/Departure Speed A.M.	Approach/Departure Speed P.M.
North-South Roadway:	Saratoga Avenue	AT GRADE	2	5	5
East-West Roadway:	Kiely Boulevard	AT GRADE	2	5	5

EMFAC2002 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Ar County: All

Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

	Average Speed (miles per hour)									
Year	5	8	11	14	17	20	23	26	29	32
2007	10.404	9.093	8.058	7.231	6.563	6.024	5.588	5.23	4.936	4.7
2008	9.453	8.28	7.351	6.607	6.005	5.518	5.124	4.799	4.532	4.316
2009	8.51	7.471	6.646	5.984	5.448	5.012	4.66	4.367	4.126	3.929
2010	7.609	6.699	5.976	5.392	4.918	4.532	4.219	3.958	3.741	3.564
2011	6.831	6.032	5.393	4.877	4.456	4.113	3.833	3.599	3.404	3.243
2012	6.141	5.437	4.874	4.416	4.042	3.737	3.487	3.277	3.101	2.955
2013	5.528	4.909	4.411	4.005	3.673	3.4	3.177	2.988	2.83	2.697
2014	4.98	4.435	3.995	3.635	3.339	3.097	2.897	2.728	2.584	2.464
2015	4.502	4.021	3.63	3.311	3.047	2.829	2.65	2.497	2.368	2.258
2020	2.909	2.632	2.402	2.21	2.05	1.917	1.805	1.708	1.624	1.552
2025	2.144	1.95	1.789	1.653	1.539	1.444	1.364	1.294	1.233	1.181
2030	1.756	1.601	1.472	1.363	1.271	1.195	1.131	1.075	1.027	0.985

PEAK HOUR TURNING VOLUMES

A.M. Peak

N				
	31	710	10	
W	<	v	>	E
36 ^			^	42
30 >			<	90
481 v			v	267
	<	^	>	
	921	1,282	82	
S				

P.M. Peak

N				
	90	1,150	24	
W	<	v	>	E
86 ^			^	47
149 >			<	84
848 v			v	241
	<	^	>	
	625	920	172	
S				

Representative Traffic Volumes (Vehicles per Hour)

N-S Road	3,743	N-S Road	3,956
E-W Road	1,589	E-W Road	1,882
Primary Road =	N-S Road	Primary Road =	N-S Road

ROADWAY CO CONTRIBUTIONS

Roadway	Reference CO Concentrations 0 Feet	25 Feet	50 Feet		Traffic Volume		Emission Factor		
A.M. Peak Hour									
N-S Road	14.0	7.6	5.7	*	3,743	*	1.76	÷	100,000
E-W Road	3.7	2.7	2.2	*	1,589	*	1.76	÷	100,000
P.M. Peak Hour									
N-S Road	14.0	7.6	5.7	*	3,956	*	1.76	÷	100,000
E-W Road	3.7	2.7	2.2	*	1,882	*	1.76	÷	100,000

TOTAL CO CONCENTRATIONS (ppm)

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
0 Feet from Roadway Edge	8.5	8.6	5.3
25 Feet from Roadway Edge	8.1	8.1	4.9
50 Feet from Roadway Edge	7.9	8.0	4.8