

# **APPENDIX W**

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*Air Quality Modeling Results and Final Conformity  
Determination*

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt A-near term cor.  
Project Name: Graton Alt A - Proposed Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMPAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (lbs/day,unmitigated)	29.56	212.11	234.30	0.05	72.31	8.18	64.13
*** 2008 *** TOTALS (lbs/day,unmitigated)	48.09	157.08	221.11	0.00	6.29	5.80	0.49
*** 2009 *** TOTALS (lbs/day,unmitigated)	7.64	45.84	62.58	0.00	1.48	1.47	0.01

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt A-near term con  
Project Name: Graton Alt A - Proposed Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (tpy, unmitigated)	1.96	13.87	15.40	0.00	4.16	0.55	3.61
*** 2008 *** TOTALS (tpy, unmitigated)	3.28	16.01	21.24	0.00	0.65	0.61	0.04
*** 2009 *** TOTALS (tpy, unmitigated)	0.16	1.00	1.37	0.00	0.03	0.03	0.00

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt A-near term con  
 Project Name: Graton Alt A - Proposed Near Term Const  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007  
 Construction Duration: 27  
 Total Land Use Area to be Developed: 66 acres  
 Maximum Acreage Disturbed Per Day: 6.4 acres  
 Single Family Units: 0 Multi-Family Units: 0  
 Retail/Office/Institutional/Industrial Square Footage: 558000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	7.09	-	7.09
Off-Road Diesel	10.75	79.71	81.01	-	3.45	3.45	0.00
On-Road Diesel	1.42	20.44	5.27	0.04	0.70	0.60	0.10
Worker Trips	0.06	0.10	1.73	0.00	0.01	0.00	0.01
Maximum lbs/day	12.23	100.25	88.01	0.04	11.25	4.05	7.20
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	64.00	-	64.00
Off-Road Diesel	27.87	184.73	226.96	-	7.51	7.51	0.00
On-Road Diesel	1.57	27.31	5.86	0.05	0.78	0.67	0.11
Worker Trips	0.12	0.07	1.48	0.00	0.02	0.00	0.02
Maximum lbs/day	29.56	212.11	234.30	0.05	72.31	8.18	64.13
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	16.00	113.54	124.19	-	4.71	4.71	0.00
Bldg Const Worker Trips	1.33	0.81	17.14	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	17.34	114.35	141.33	0.00	4.97	4.73	0.24
Max lbs/day all phases	29.56	212.11	234.30	0.05	72.31	8.18	64.13
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	16.00	108.88	127.09	-	4.26	4.26	0.00
Bldg Const Worker Trips	1.23	0.76	15.98	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	21.98	-	-	-	-	-	-
Arch Coatings Worker Trips	1.23	0.76	15.98	0.00	0.25	0.01	0.24
Asphalt Off-Gas	0.15	-	-	-	-	-	-
Asphalt Off-Road Diesel	7.41	46.00	61.26	-	1.50	1.50	0.00
Asphalt On-Road Diesel	0.04	0.66	0.14	0.00	0.02	0.02	0.00
Asphalt Worker Trips	0.05	0.03	0.66	0.00	0.01	0.00	0.01
Maximum lbs/day	48.09	157.08	221.11	0.00	6.29	5.80	0.49
Max lbs/day all phases	48.09	157.08	221.11	0.00	6.29	5.80	0.49
*** 2009***							

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.15	-	-	-	-	-	-
Asphalt Off-Road Diesel	7.41	45.21	61.84	-	1.46	1.46	0.00
Asphalt On-Road Diesel	0.04	0.60	0.13	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.05	0.03	0.60	0.00	0.01	0.00	0.01
Maximum lbs/day	7.64	45.84	62.58	0.00	1.48	1.47	0.01
Max lbs/day all phases	7.64	45.84	62.58	0.00	1.48	1.47	0.01

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Jun '07  
 Phase 1 Duration: 1.0 months  
 Building Volume Total (cubic feet): 85540  
 Building Volume Daily (cubic feet): 16875  
 On-Road Truck Travel (VMT): 936  
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
2	Rubber Tired Dozers	352	0.590	8.0
1	Rubber Tired Loaders	165	0.465	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07  
 Phase 2 Duration: 5 months  
 On-Road Truck Travel (VMT): 1041.5  
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Crawler Tractors	143	0.575	8.0
3	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
2	Other Equipment	190	0.620	8.0
2	Rubber Tired Loaders	165	0.465	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Dec '07  
 Phase 3 Duration: 21 months  
 Start Month/Year for SubPhase Building: Dec '07  
 SubPhase Building Duration: 13 months  
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
3	Concrete/Industrial saws	84	0.730	8.0
2	Cranes	190	0.430	8.0
3	Other Equipment	190	0.620	8.0
3	Rough Terrain Forklifts	94	0.475	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Sep '08

SubPhase Architectural Coatings Duration: 3 months

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 5 months

Acres to be Paved: 6.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Pavers	132	0.590	8.0
2	Paving Equipment	111	0.530	8.0
3	Rollers	114	0.430	8.0



Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0  
The Primary Trip % for Office park changed from 80 to 100  
The Diverted Trip % for Office park changed from 15 to 0  
The Pass-By Trip % for Office park changed from 5 to 0

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths  
Site Grading Truck Haul Capacity (yds3) changed from 20 to 12  
Site Grading Miles/Round Trip changed from 20 to 5  
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013  
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013  
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas  
has been changed from off to on.  
Phase 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly  
has been changed from off to on.  
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily  
has been changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt A-near Berm.urb  
Project Name: Graton Alt A - Proposed Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	0.65	3.86	4.68	0.00	0.01
TOTALS (lbs/day, mitigated)	0.55	3.09	3.74	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	377.57	726.12	6,354.58	4.41	779.23
TOTALS (lbs/day, mitigated)	361.01	693.68	6,070.07	4.21	744.42

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	378.22	729.98	6,359.26	4.41	779.24
TOTALS (lbs/day, mitigated)	361.56	696.77	6,073.81	4.21	744.43



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt A-near Term.urb  
Project Name: Graton Alt A - Proposed Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMPAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.09	0.70	0.72	0.00	0.00
TOTALS (tpy, mitigated)	0.08	0.56	0.58	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	77.19	155.05	1,176.36	0.80	142.21
TOTALS (tpy, mitigated)	73.78	148.12	1,123.70	0.76	135.86

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	77.29	155.75	1,177.08	0.80	142.21
TOTALS (tpy, mitigated)	73.85	148.69	1,124.28	0.76	135.86

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt A-near Term.urb  
Project Name: Graton Alt A - Proposed Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.28	3.85	3.23	0	0.01
Hearth - No summer emissions					
Landscaping	0.22	0.01	1.44	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.15	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.65	3.86	4.68	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.22	3.08	2.59	0	0.01
Hearth - No summer emissions					
Landscaping	0.18	0.01	1.15	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.15	-	-	-	-
TOTALS (lbs/day, mitigated)	0.55	3.09	3.74	0.00	0.01

Area Source Mitigation Measures

- Residential Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Commercial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Industrial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Residential Electric Landscape Maintenance Equipment  
Percent Reduction: 20
- Commercial/Industrial Electric Landscape Maintenance Equipment  
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	356.05	691.07	6,047.82	4.20	741.61
Hotel	21.52	35.05	306.76	0.21	37.62
TOTAL EMISSIONS (lbs/day)	377.57	726.12	6,354.58	4.41	779.23

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreeage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	408.00	16,087.44
Hotel		2.72 trips/rooms	300.00	816.00
			Sum of Total Trips	16,903.44
			Total Vehicle Miles Traveled	514,786.87

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	340.29	660.19	5,777.05	4.01	708.48
Hotel	20.72	33.49	293.03	0.20	35.94
TOTAL EMISSIONS (lbs/day)	361.01	693.68	6,070.07	4.21	744.42
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		37.68 trips/1000 sq. ft.	408.00	15,374.89
(Worker Trip Rate: 36.81)				
Hotel		2.60 trips/rooms	300.00	779.86
(Worker Trip Rate: 2.54)				
Sum of Total Trips				16,154.75
Total Vehicle Miles Traveled				491,790.79

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

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Non-Residential Local-Serving Retail Mitigation

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Percent Reduction in Trips is 2%

Inputs Selected:

The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

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Percent Reduction in Trips is 0.25%

Inputs Selected:

The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24

The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0

The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Pedestrian/Bicycle Friendliness Mitigation

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Percent Reduction in Trips is 2.18%

Inputs Selected:

The Number of Intersections per Square Mile is 100

The Percent of Streets with Sidewalks on One Side is 50%

The Percent of Streets with Sidewalks on Both Sides is 10%

The Percent of Arterials/Collectors with Bike Lanes or where Suitable, Direct Parallel Routes Exist is 30%

Direct Parallel Routes Exist is 30%

Non-Residential Free Transit Passes Mitigation

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Percent Reduction in Trips is 0.06%

Note that the above percent is applied ONLY to worker trips.

Inputs Selected:

The Free Transit Passes checkbox was selected.

Non-Residential Other Transportation Demand Measures Mitigation

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Percent Reduction in Trips is 2.24%

Note that the above percent is applied ONLY to worker trips.

Inputs Selected:

The 'Showers/Changing Facilities Provided' measure was selected

The 'Guaranteed Ride Home Program Provided' measure was selected

The 'Information provided on Transportation Alternatives' measure was selected

The 'Dedicated Employee Transportation Coordinator' measure was selected

The 'Carpool Matching Programs' measure was selected

The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The area source mitigation measure option switch changed from off to on.  
The landscape year changed from 2005 to 2007.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
Mitigation measure Residential Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Industrial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Residential Electric Landscape Maintenance Equipment  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The mitigation option switch changed from off to on.  
The operational emission year changed from 2005 to 2008.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.  
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.  
The Res and Non-Res Transit Service Mitigation changed from off to on.  
The Res and Non-Res Ped/Bike Mitigation changed from off to on.  
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt A-long term.urb  
Project Name: Graton Alt A - Proposed Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES					
	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.61	3.87	4.50	0.00	0.01
OPERATIONAL (VEHICLE) EMISSION ESTIMATES					
	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	148.37	247.79	2,405.13	4.38	776.59
SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES					
	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	148.97	251.65	2,409.63	4.38	776.60

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt A-long term.urb  
Project Name: Graton Alt A - Proposed Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.09	0.70	0.70	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	30.23	52.91	441.91	0.79	141.73

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	30.32	53.61	442.61	0.79	141.73



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt A-long term.urb  
Project Name: Graton Alt A - Proposed Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.28	3.85	3.23	0	0.01
Hearth - No summer emissions					
Landscaping	0.18	0.02	1.26	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.15	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.61	3.87	4.50	0.00	0.01

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	139.36	235.82	2,289.03	4.17	739.10
Hotel	9.01	11.96	116.11	0.21	37.49
<b>TOTAL EMISSIONS (lbs/day)</b>	<b>148.37</b>	<b>247.79</b>	<b>2,405.13</b>	<b>4.38</b>	<b>776.59</b>

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreeage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	408.00	16,087.44
Hotel		2.72 trips/rooms	300.00	816.00
Sum of Total Trips				16,903.44
Total Vehicle Miles Traveled				514,786.87

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The landscape year changed from 2005 to 2020.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2020.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt B-near term con  
Project Name: Graton Alt B - NW Stoney Point Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	51.65	203.42	232.44	0.04	72.06	7.96	64.10
*** 2008 ***							
TOTALS (lbs/day,unmitigated)	51.43	156.76	205.22	0.00	6.28	5.80	0.48
*** 2009 ***							
TOTALS (lbs/day,unmitigated)	17.12	105.14	144.84	0.00	4.21	3.97	0.24

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt B-near term cor  
Project Name: Graton Alt B - NW Stoney Point Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (tpy, unmitigated)	2.16	12.47	14.49	0.00	3.40	0.50	2.90
*** 2008 *** TOTALS (tpy, unmitigated)	2.88	16.01	20.93	0.00	0.64	0.61	0.03
*** 2009 *** TOTALS (tpy, unmitigated)	0.57	3.47	4.78	0.00	0.14	0.13	0.01

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt B-near term con  
 Project Name: Graton Alt B - NW Stoney Point Near Term Const  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMPAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007  
 Construction Duration: 27  
 Total Land Use Area to be Developed: 66 acres  
 Maximum Acreage Disturbed Per Day: 6.4 acres  
 Single Family Units: 0 Multi-Family Units: 0  
 Retail/Office/Institutional/Industrial Square Footage: 558000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	6.64	-	6.64
Off-Road Diesel	10.75	79.71	81.01	-	3.45	3.45	0.00
On-Road Diesel	1.33	19.15	4.94	0.04	0.65	0.56	0.09
Worker Trips	0.06	0.10	1.73	0.00	0.01	0.00	0.01
Maximum lbs/day	12.14	98.96	87.68	0.04	10.75	4.01	6.74
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	64.00	-	64.00
Off-Road Diesel	27.87	184.73	226.96	-	7.51	7.51	0.00
On-Road Diesel	1.07	18.62	4.00	0.03	0.53	0.45	0.08
Worker Trips	0.12	0.07	1.48	0.00	0.02	0.00	0.02
Maximum lbs/day	29.06	203.42	232.44	0.03	72.06	7.96	64.10
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	16.00	113.54	124.19	-	4.71	4.71	0.00
Bldg Const Worker Trips	1.33	0.81	17.14	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	32.97	-	-	-	-	-	-
Arch Coatings Worker Trips	1.33	0.81	17.14	0.00	0.25	0.01	0.24
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	51.65	115.16	158.47	0.00	5.22	4.74	0.48
Max lbs/day all phases	51.65	203.42	232.44	0.04	72.06	7.96	64.10
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	16.00	108.88	127.09	-	4.26	4.26	0.00
Bldg Const Worker Trips	1.23	0.76	15.98	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	32.97	-	-	-	-	-	-
Arch Coatings Worker Trips	1.23	0.76	15.98	0.00	0.25	0.01	0.24
Asphalt Off-Gas	0.25	-	-	-	-	-	-
Asphalt Off-Road Diesel	7.41	46.00	61.26	-	1.50	1.50	0.00
Asphalt On-Road Diesel	0.06	1.10	0.24	0.00	0.03	0.03	0.00
Asphalt Worker Trips	0.05	0.03	0.66	0.00	0.01	0.00	0.01
Maximum lbs/day	51.43	156.76	205.22	0.00	6.28	5.80	0.48
Max lbs/day all phases	51.43	156.76	205.22	0.00	6.28	5.80	0.48
*** 2009***							

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	16.00	104.44	130.11	-	3.96	3.96	0.00
Bldg Const Worker Trips	1.12	0.69	14.74	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	17.12	105.14	144.84	0.00	4.21	3.97	0.24
Max lbs/day all phases	17.12	105.14	144.84	0.00	4.21	3.97	0.24

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Jun '07  
 Phase 1 Duration: 1 months  
 Building Volume Total (cubic feet): 210000  
 Building Volume Daily (cubic feet): 15813.06  
 On-Road Truck Travel (VMT): 879

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
2	Rubber Tired Dozers	352	0.590	8.0
1	Rubber Tired Loaders	165	0.465	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07  
 Phase 2 Duration: 4 months  
 On-Road Truck Travel (VMT): 710

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Crawler Tractors	143	0.575	8.0
3	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
2	Other Equipment	190	0.620	8.0
2	Rubber Tired Loaders	165	0.465	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Nov '07  
 Phase 3 Duration: 22 months  
 Start Month/Year for SubPhase Building: Nov '07  
 SubPhase Building Duration: 17 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
3	Concrete/Industrial saws	84	0.730	8.0
2	Cranes	190	0.430	8.0
3	Other Equipment	190	0.620	8.0
3	Rough Terrain Forklifts	94	0.475	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Dec '07

SubPhase Architectural Coatings Duration: 2 months

Start Month/Year for SubPhase Asphalt: Sep '08

SubPhase Asphalt Duration: 3 months

Acres to be Paved: 6.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Pavers	132	0.590	8.0
2	Paving Equipment	111	0.530	8.0
3	Rollers	114	0.430	8.0





Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0  
The Primary Trip % for Office park changed from 80 to 100  
The Diverted Trip % for Office park changed from 15 to 0  
The Pass-By Trip % for Office park changed from 5 to 0

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths  
Site Grading Truck Haul Capacity (yds3) changed from 20 to 12  
Site Grading Miles/Round Trip changed from 20 to 5  
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013  
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt B-near term.urb  
Project Name: Graton Alt B - NW Stoney Point Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	2.60	3.86	4.68	0.00	0.01
TOTALS (lbs/day, mitigated)	2.50	3.09	3.74	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	377.57	726.12	6,354.58	4.41	779.23
TOTALS (lbs/day, mitigated)	361.01	693.68	6,070.07	4.21	744.42

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	380.18	729.98	6,359.26	4.41	779.24
TOTALS (lbs/day, mitigated)	363.52	696.77	6,073.81	4.21	744.43

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt B-near term.urb  
Project Name: Graton Alt B - NW Stoney Point Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.35	0.70	0.72	0.00	0.00
TOTALS (tpy, mitigated)	0.33	0.56	0.58	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	77.19	155.05	1,176.36	0.80	142.21
TOTALS (tpy, mitigated)	73.78	148.12	1,123.70	0.76	135.86

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	77.54	155.75	1,177.08	0.80	142.21
TOTALS (tpy, mitigated)	74.11	148.69	1,124.28	0.76	135.86

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt B-near term.urb  
Project Name: Graton Alt B - NW Stoney Point Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.28	3.85	3.23	0	0.01
Hearth - No summer emissions					
Landscaping	0.22	0.01	1.44	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.10	-	-	-	-
TOTALS (lbs/day, unmitigated)	2.60	3.86	4.68	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.22	3.08	2.59	0	0.01
Hearth - No summer emissions					
Landscaping	0.18	0.01	1.15	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.10	-	-	-	-
TOTALS (lbs/day, mitigated)	2.50	3.09	3.74	0.00	0.01

Area Source Mitigation Measures

- Residential Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Commercial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Industrial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Residential Electric Landscape Maintenance Equipment  
Percent Reduction: 20
- Commercial/Industrial Electric Landscape Maintenance Equipment  
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	356.05	691.07	6,047.82	4.20	741.61
Hotel	21.52	35.05	306.76	0.21	37.62
TOTAL EMISSIONS (lbs/day)	377.57	726.12	6,354.58	4.41	779.23

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	408.00	16,087.44
Hotel		2.72 trips/rooms	300.00	816.00
Sum of Total Trips				16,903.44
Total Vehicle Miles Traveled				514,786.87

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	340.29	660.19	5,777.05	4.01	708.48
Hotel	20.72	33.49	293.03	0.20	35.94
TOTAL EMISSIONS (lbs/day)	361.01	693.68	6,070.07	4.21	744.42
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		37.68 trips/1000 sq. ft.	408.00	15,374.89
(Worker Trip Rate: 36.81)				
Hotel		2.60 trips/rooms	300.00	779.86
(Worker Trip Rate: 2.54)				
Sum of Total Trips				16,154.75
Total Vehicle Miles Traveled				491,790.79

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures  
=====

Non-Residential Local-Serving Retail Mitigation  
-----

Percent Reduction in Trips is 2%

Inputs Selected:

The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation  
-----

Percent Reduction in Trips is 0.25%

Inputs Selected:

The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24

The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0

The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Pedestrian/Bicycle Friendliness Mitigation  
-----

Percent Reduction in Trips is 2.18%

Inputs Selected:

The Number of Intersections per Square Mile is 100

The Percent of Streets with Sidewalks on One Side is 50%

The Percent of Streets with Sidewalks on Both Sides is 10%

The Percent of Arterials/Collectors with Bike Lanes or where Suitable,  
Direct Parallel Routes Exist is 30%

Non-Residential Free Transit Passes Mitigation  
-----

Percent Reduction in Trips is 0.06%

Note that the above percent is applied ONLY to worker trips.

Inputs Selected:

The Free Transit Passes checkbox was selected.

Non-Residential Other Transportation Demand Measures Mitigation  
-----

Percent Reduction in Trips is 2.24%

Note that the above percent is applied ONLY to worker trips.

Inputs Selected:

The 'Showers/Changing Facilities Provided' measure was selected

The 'Guaranteed Ride Home Program Provided' measure was selected

The 'Information provided on Transportation Alternatives' measure was selected

The 'Dedicated Employee Transportation Coordinator' measure was selected

The 'Carpool Matching Programs' measure was selected

The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The area source mitigation measure option switch changed from off to on.  
The landscape year changed from 2005 to 2007.  
Mitigation measure Residential Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Industrial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Residential Electric Landscape Maintenance Equipment  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The mitigation option switch changed from off to on.  
The operational emission year changed from 2005 to 2008.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.  
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.  
The Res and Non-Res Transit Service Mitigation changed from off to on.  
The Res and Non-Res Ped/Bike Mitigation changed from off to on.  
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt B-long term.urb  
Project Name: Graton Alt B - NW Stoney Point Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	2.56	3.87	4.50	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	148.37	247.79	2,405.13	4.38	776.59

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	150.93	251.65	2,409.63	4.38	776.60

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt B-long term.urb  
Project Name: Graton Alt B - NW Stoney Point Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.34	0.70	0.70	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	30.23	52.91	441.91	0.79	141.73

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	30.58	53.61	442.61	0.79	141.73

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt B-long term.urb  
Project Name: Graton Alt B - NW Stoney Point Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)	ROG	NOx	CO	SO2	PM10
Natural Gas	0.28	3.85	3.23	0	0.01
Hearth - No summer emissions					
Landscaping	0.18	0.02	1.26	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.10	-	-	-	-
TOTALS(lbs/day,unmitigated)	2.56	3.87	4.50	0.00	0.01

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	139.36	235.82	2,289.03	4.17	739.10
Hotel	9.01	11.96	116.11	0.21	37.49
<b>TOTAL EMISSIONS (lbs/day)</b>	<b>148.37</b>	<b>247.79</b>	<b>2,405.13</b>	<b>4.38</b>	<b>776.59</b>

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreeage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	408.00	16,087.44
Hotel		2.72 trips/rooms	300.00	816.00
Sum of Total Trips				16,903.44
Total Vehicle Miles Traveled				514,786.87

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The landscape year changed from 2005 to 2020.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2020.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt C-near term cor  
Project Name: Graton Alt C - NE Stoney Point Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (lbs/day,unmitigated)	30.22	219.94	242.49	0.06	72.53	8.37	64.16
*** 2008 *** TOTALS (lbs/day,unmitigated)	51.43	156.34	202.26	0.00	6.28	5.80	0.48
*** 2009 *** TOTALS (lbs/day,unmitigated)	17.12	105.14	144.84	0.00	4.21	3.97	0.24

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt C-near term con  
Project Name: Graton Alt C - NE Stoney Point Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (tpy, unmitigated)	2.04	14.35	16.42	0.00	4.10	0.56	3.54
*** 2008 *** TOTALS (tpy, unmitigated)	3.27	16.01	21.07	0.00	0.65	0.61	0.04
*** 2009 *** TOTALS (tpy, unmitigated)	0.57	3.47	4.78	0.00	0.14	0.13	0.01

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt C-near term con  
 Project Name: Graton Alt C - NE Stoney Point Near Term Const  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007  
 Construction Duration: 27  
 Total Land Use Area to be Developed: 66 acres  
 Maximum Acreage Disturbed Per Day: 6.4 acres  
 Single Family Units: 0 Multi-Family Units: 0  
 Retail/Office/Institutional/Industrial Square Footage: 558000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	64.00	-	64.00
Off-Road Diesel	27.87	184.73	226.96	-	7.51	7.51	0.00
On-Road Diesel	2.00	34.76	7.46	0.06	0.99	0.85	0.14
Worker Trips	0.35	0.45	8.07	0.00	0.03	0.01	0.02
Maximum lbs/day	30.22	219.94	242.49	0.06	72.53	8.37	64.16
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	16.00	113.54	124.19	-	4.71	4.71	0.00
Bldg Const Worker Trips	1.33	0.81	17.14	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	17.34	114.35	141.33	0.00	4.97	4.73	0.24
Max lbs/day all phases	30.22	219.94	242.49	0.06	72.53	8.37	64.16
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	16.00	108.88	127.09	-	4.26	4.26	0.00
Bldg Const Worker Trips	1.23	0.76	15.98	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	32.97	-	-	-	-	-	-
Arch Coatings Worker Trips	1.23	0.76	15.98	0.00	0.25	0.01	0.24
Asphalt Off-Gas	0.25	-	-	-	-	-	-
Asphalt Off-Road Diesel	7.41	46.00	61.26	-	1.50	1.50	0.00
Asphalt On-Road Diesel	0.06	0.92	0.24	0.00	0.03	0.03	0.00
Asphalt Worker Trips	0.05	0.02	0.54	0.00	0.01	0.00	0.01
Maximum lbs/day	51.43	156.34	202.26	0.00	6.28	5.80	0.48
Max lbs/day all phases	51.43	156.34	202.26	0.00	6.28	5.80	0.48
*** 2009***							



Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	16.00	104.44	130.11	-	3.96	3.96	0.00
Bldg Const Worker Trips	1.12	0.69	14.74	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	17.12	105.14	144.84	0.00	4.21	3.97	0.24
Max lbs/day all phases	17.12	105.14	144.84	0.00	4.21	3.97	0.24

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jun '07  
Phase 2 Duration: 5 months  
On-Road Truck Travel (VMT): 1326

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Crawler Tractors	143	0.575	8.0
3	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
2	Other Equipment	190	0.620	8.0
2	Rubber Tired Loaders	165	0.465	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Nov '07  
Phase 3 Duration: 22 months  
Start Month/Year for SubPhase Building: Nov '07  
SubPhase Building Duration: 17 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
3	Concrete/Industrial saws	84	0.730	8.0
2	Cranes	190	0.430	8.0
3	Other Equipment	190	0.620	8.0
3	Rough Terrain Forklifts	94	0.475	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Mar '08

SubPhase Architectural Coatings Duration: 2 months

Start Month/Year for SubPhase Asphalt: May '08

SubPhase Asphalt Duration: 3 months

Acres to be Paved: 6.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Pavers	132	0.590	8.0
2	Paving Equipment	111	0.530	8.0
3	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0  
The Primary Trip % for Office park changed from 80 to 100  
The Diverted Trip % for Office park changed from 15 to 0  
The Pass-By Trip % for Office park changed from 5 to 0

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths  
Site Grading Truck Haul Capacity (yds3) changed from 20 to 12  
Site Grading Miles/Round Trip changed from 20 to 5  
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013  
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt C-near term.urb  
Project Name: Graton Alt C - NE Stoney Point Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	2.60	3.86	4.68	0.00	0.01
TOTALS (lbs/day, mitigated)	2.50	3.09	3.74	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	377.57	726.12	6,354.58	4.41	779.23
TOTALS (lbs/day, mitigated)	361.01	693.68	6,070.07	4.21	744.42

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	380.18	729.98	6,359.26	4.41	779.24
TOTALS (lbs/day, mitigated)	363.52	696.77	6,073.81	4.21	744.43

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt C-near term.urb  
Project Name: Graton Alt C - NE Stoney Point Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.35	0.70	0.72	0.00	0.00
TOTALS (tpy, mitigated)	0.33	0.56	0.58	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	77.19	155.05	1,176.36	0.80	142.21
TOTALS (tpy, mitigated)	73.78	148.12	1,123.70	0.76	135.86

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	77.54	155.75	1,177.08	0.80	142.21
TOTALS (tpy, mitigated)	74.11	148.69	1,124.28	0.76	135.86

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt C-near term.urb  
Project Name: Graton Alt C - NE Stoney Point Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.28	3.85	3.23	0	0.01
Hearth - No summer emissions					
Landscaping	0.22	0.01	1.44	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.10	-	-	-	-
TOTALS (lbs/day, unmitigated)	2.60	3.86	4.68	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.22	3.08	2.59	0	0.01
Hearth - No summer emissions					
Landscaping	0.18	0.01	1.15	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.10	-	-	-	-
TOTALS (lbs/day, mitigated)	2.50	3.09	3.74	0.00	0.01

Area Source Mitigation Measures

- Residential Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Commercial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Industrial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Residential Electric Landscape Maintenance Equipment  
Percent Reduction: 20
- Commercial/Industrial Electric Landscape Maintenance Equipment  
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	356.05	691.07	6,047.82	4.20	741.61
Hotel	21.52	35.05	306.76	0.21	37.62
TOTAL EMISSIONS (lbs/day)	377.57	726.12	6,354.58	4.41	779.23

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	408.00	16,087.44
Hotel		2.72 trips/rooms	300.00	816.00
Sum of Total Trips				16,903.44
Total Vehicle Miles Traveled				514,786.87

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	340.29	660.19	5,777.05	4.01	708.48
Hotel	20.72	33.49	293.03	0.20	35.94
TOTAL EMISSIONS (lbs/day)	361.01	693.68	6,070.07	4.21	744.42
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino (Worker Trip Rate: 36.81)		37.68 trips/1000 sq. ft.	408.0015	374.89
Hotel (Worker Trip Rate: 2.54)		2.60 trips/rooms	300.00	779.86
Sum of Total Trips				16,154.75
Total Vehicle Miles Traveled				491,790.79

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures  
=====

Non-Residential Local-Serving Retail Mitigation  
-----

Percent Reduction in Trips is 2%  
Inputs Selected:  
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation  
-----

Percent Reduction in Trips is 0.25%  
Inputs Selected:  
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24  
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0  
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Pedestrian/Bicycle Friendliness Mitigation  
-----

Percent Reduction in Trips is 2.18%  
Inputs Selected:  
The Number of Intersections per Square Mile is 100  
The Percent of Streets with Sidewalks on One Side is 50%  
The Percent of Streets with Sidewalks on Both Sides is 10%  
The Percent of Arterials/Collectors with Bike Lanes or where Suitable,  
Direct Parallel Routes Exist is 30%

Non-Residential Free Transit Passes Mitigation  
-----

Percent Reduction in Trips is 0.06%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The Free Transit Passes checkbox was selected.

Non-Residential Other Transportation Demand Measures Mitigation  
-----

Percent Reduction in Trips is 2.24%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The 'Showers/Changing Facilities Provided' measure was selected  
The 'Guaranteed Ride Home Program Provided' measure was selected  
The 'Information provided on Transportation Alternatives' measure was selected  
The 'Dedicated Employee Transportation Coordinator' measure was selected  
The 'Carpool Matching Programs' measure was selected  
The 'Preferential Carpool/Vanpool Parking' measure was selected



Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The area source mitigation measure option switch changed from off to on.  
The landscape year changed from 2005 to 2007.  
Mitigation measure Residential Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Industrial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Residential Electric Landscape Maintenance Equipment  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The mitigation option switch changed from off to on.  
The operational emission year changed from 2005 to 2008.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.  
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.  
The Res and Non-Res Transit Service Mitigation changed from off to on.  
The Res and Non-Res Ped/Bike Mitigation changed from off to on.  
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt C-long term.urb  
Project Name: Graton Alt C - NE Stoney Point Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	2.56	3.87	4.50	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	148.37	247.79	2,405.13	4.38	776.59

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	150.93	251.65	2,409.63	4.38	776.60

URBEMIS 2002 For Windows 8.7.0

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Project Name: Graton Alt C - NE Stoney Point Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.34	0.70	0.70	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	30.23	52.91	441.91	0.79	141.73

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	30.58	53.61	442.61	0.79	141.73

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt C-long term.urb  
Project Name: Graton Alt C - NE Stoney Point Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.28	3.85	3.23	0	0.01
Hearth - No summer emissions					
Landscaping	0.18	0.02	1.26	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.10	-	-	-	-
TOTALS (lbs/day, unmitigated)	2.56	3.87	4.50	0.00	0.01

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	139.36	235.82	2,289.03	4.17	739.10
Hotel	9.01	11.96	116.11	0.21	37.49
TOTAL EMISSIONS (lbs/day)	148.37	247.79	2,405.13	4.38	776.59

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	408.00	16,087.44
Hotel		2.72 trips/rooms	300.00	816.00
			Sum of Total Trips	16,903.44
			Total Vehicle Miles Traveled	514,786.87

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			

% of Trips - Commercial (by land use)

Casino	5.0	2.5	92.5
Hotel	5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The landscape year changed from 2005 to 2020.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2020.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt D-near term cor  
Project Name: Graton Alt D - Reduced Density Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (lbs/day,unmitigated)	27.69	199.99	216.21	0.07	46.96	7.79	39.17
*** 2008 *** TOTALS (lbs/day,unmitigated)	25.69	99.56	127.10	0.00	4.03	3.73	0.30

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt D-near term cor  
Project Name: Graton Alt D - Reduced Density Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMPAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (tpy, unmitigated)	1.25	8.86	9.78	0.00	1.30	0.36	0.94

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 *** TOTALS (tpy, unmitigated)	2.08	10.27	13.39	0.00	0.43	0.40	0.03



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt D-near term cor  
 Project Name: Graton Alt D - Reduced Density Near Term Const  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007  
 Construction Duration: 24  
 Total Land Use Area to be Developed: 66 acres  
 Maximum Acreage Disturbed Per Day: 3.9 acres  
 Single Family Units: 0 Multi-Family Units: 0  
 Retail/Office/Institutional/Industrial Square Footage: 343000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	6.64	-	6.64
Off-Road Diesel	10.75	79.71	81.01	-	3.45	3.45	0.00
On-Road Diesel	1.33	19.15	4.94	0.04	0.65	0.56	0.09
Worker Trips	0.06	0.10	1.73	0.00	0.01	0.00	0.01
Maximum lbs/day	12.14	98.96	87.68	0.04	10.75	4.01	6.74
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	39.00	-	39.00
Off-Road Diesel	25.45	168.99	207.19	-	6.88	6.88	0.00
On-Road Diesel	2.15	30.96	7.99	0.07	1.06	0.91	0.15
Worker Trips	0.09	0.04	1.03	0.00	0.02	0.00	0.02
Maximum lbs/day	27.69	199.99	216.21	0.07	46.96	7.79	39.17
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.62	76.09	81.91	-	3.19	3.19	0.00
Bldg Const Worker Trips	0.85	0.51	10.87	0.00	0.16	0.01	0.15
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	11.47	76.60	92.77	0.00	3.35	3.20	0.15
Max lbs/day all phases	27.69	199.99	216.21	0.07	46.96	7.79	39.17
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.62	72.88	83.96	-	2.88	2.88	0.00
Bldg Const Worker Trips	0.78	0.48	10.13	0.00	0.16	0.01	0.15
Arch Coatings Off-Gas	13.51	-	-	-	-	-	-
Arch Coatings Worker Trips	0.78	0.48	10.13	0.00	0.16	0.01	0.15
Asphalt Off-Gas	0.23	-	-	-	-	-	-
Asphalt Off-Road Diesel	4.14	25.51	34.30	-	0.82	0.82	0.00
Asphalt On-Road Diesel	0.06	0.84	0.22	0.00	0.02	0.02	0.00
Asphalt Worker Trips	0.03	0.01	0.30	0.00	0.01	0.00	0.01
Maximum lbs/day	25.69	99.56	127.10	0.00	4.03	3.73	0.30
Max lbs/day all phases	25.69	99.56	127.10	0.00	4.03	3.73	0.30

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Jun '07

Phase 1 Duration: 1 months

Building Volume Total (cubic feet): 210000

Building Volume Daily (cubic feet): 15813.06

On-Road Truck Travel (VMT): 879

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
2	Rubber Tired Dozers	352	0.590	8.0
1	Rubber Tired Loaders	165	0.465	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07

Phase 2 Duration: 2 months

On-Road Truck Travel (VMT): 1420.5

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Crawler Tractors	143	0.575	8.0
2	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
2	Other Equipment	190	0.620	8.0
2	Rubber Tired Loaders	165	0.465	8.0
2	Scrapers	313	0.660	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Sep '07

Phase 3 Duration: 21 months

Start Month/Year for SubPhase Building: Sep '07

SubPhase Building Duration: 16 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Jan '08

SubPhase Architectural Coatings Duration: 3 months

Start Month/Year for SubPhase Asphalt: Apr '08

SubPhase Asphalt Duration: 2 months

Acres to be Paved: 3.9

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
2	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0  
The Primary Trip % for Office park changed from 80 to 100  
The Diverted Trip % for Office park changed from 15 to 0  
The Pass-By Trip % for Office park changed from 5 to 0

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths  
Site Grading Truck Haul Capacity (yds3) changed from 20 to 12  
Site Grading Miles/Round Trip changed from 20 to 5  
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013  
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt D-near term.urb  
Project Name: Graton Alt D - Reduced Density Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	0.36	1.29	2.52	0.00	0.01
TOTALS (lbs/day, mitigated)	0.30	1.03	2.02	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	262.87	507.97	4,445.42	3.09	545.12
TOTALS (lbs/day, mitigated)	251.28	485.27	4,246.39	2.95	520.77

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	263.23	509.26	4,447.94	3.09	545.13
TOTALS (lbs/day, mitigated)	251.58	486.31	4,248.40	2.95	520.77

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt D-near term.urb  
Project Name: Graton ALT D - Reduced Density Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.04	0.23	0.33	0.00	0.00
TOTALS (tpy, mitigated)	0.04	0.19	0.26	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	53.85	108.47	822.94	0.56	99.48
TOTALS (tpy, mitigated)	51.46	103.62	786.10	0.53	95.04

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	53.89	108.70	823.26	0.56	99.49
TOTALS (tpy, mitigated)	51.49	103.81	786.36	0.53	95.04

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt D-near term.urb  
Project Name: Graton Alt D - Reduced Density Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.09	1.28	1.08	0	0.00
Hearth - No summer emissions					
Landscaping	0.22	0.01	1.44	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.05	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.36	1.29	2.52	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.07	1.03	0.86	0	0.00
Hearth - No summer emissions					
Landscaping	0.18	0.01	1.15	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.05	-	-	-	-
TOTALS (lbs/day, mitigated)	0.30	1.03	2.02	0.00	0.01

Area Source Mitigation Measures

- Residential Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Commercial/Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Industrial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Residential Electric Landscape Maintenance Equipment  
Percent Reduction: 20
- Commercial/Industrial Electric Landscape Maintenance Equipment  
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	255.70	496.28	4,343.16	3.01	532.58
Hotel	7.17	11.68	102.25	0.07	12.54
TOTAL EMISSIONS (lbs/day)	262.87	507.97	4,445.42	3.09	545.12

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	293.00	11,552.99
Hotel		2.72 trips/rooms	100.00	272.00
			Sum of Total Trips	11,824.99
			Total Vehicle Miles Traveled	360,124.90

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

MITIGATED OPERATIONAL EMISSIONS.

	ROG	NOx	CO	SO2	PM10
Casino	244.38	474.11	4,148.71	2.88	508.79
Hotel	6.91	11.16	97.68	0.07	11.98
TOTAL EMISSIONS (lbs/day)	251.28	485.27	4,246.39	2.95	520.77
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		37.68 trips/1000 sq. ft.	293.00	11,041.28
(Worker Trip Rate: 36.81)				
Hotel		2.60 trips/rooms	100.00	259.95
(Worker Trip Rate: 2.54)				
Sum of Total Trips				11,301.23
Total Vehicle Miles Traveled				344,037.73

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5



MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures  
-----

Non-Residential Local-Serving Retail Mitigation  
-----

Percent Reduction in Trips is 2%  
Inputs Selected:  
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation  
-----

Percent Reduction in Trips is 0.25%  
Inputs Selected:  
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24  
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0  
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Pedestrian/Bicycle Friendliness Mitigation  
-----

Percent Reduction in Trips is 2.18%  
Inputs Selected:  
The Number of Intersections per Square Mile is 100  
The Percent of Streets with Sidewalks on One Side is 50%  
The Percent of Streets with Sidewalks on Both Sides is 10%  
The Percent of Arterials/Collectors with Bike Lanes or where Suitable,  
Direct Parallel Routes Exist is 30%

Non-Residential Free Transit Passes Mitigation  
-----

Percent Reduction in Trips is 0.06%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The Free Transit Passes checkbox was selected.

Non-Residential Other Transportation Demand Measures Mitigation  
-----

Percent Reduction in Trips is 2.24%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The 'Showers/Changing Facilities Provided' measure was selected  
The 'Guaranteed Ride Home Program Provided' measure was selected  
The 'Information provided on Transportation Alternatives' measure was selected  
The 'Dedicated Employee Transportation Coordinator' measure was selected  
The 'Carpool Matching Programs' measure was selected  
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The area source mitigation measure option switch changed from off to on.  
The landscape year changed from 2005 to 2007.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
Mitigation measure Residential Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Industrial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Residential Electric Landscape Maintenance Equipment  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The mitigation option switch changed from off to on.  
The operational emission year changed from 2005 to 2008.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.  
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.  
The Res and Non-Res Transit Service Mitigation changed from off to on.  
The Res and Non-Res Ped/Bike Mitigation changed from off to on.  
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

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Project Name: Graton Alt D - Reduced Density Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.32	1.30	2.34	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	103.08	173.34	1,682.54	3.06	543.27

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	103.40	174.64	1,684.88	3.07	543.27

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt D-long term.urb  
Project Name: Graton Alt D - Reduced Density Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.04	0.24	0.31	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	21.06	37.01	309.14	0.56	99.15

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	21.10	37.25	309.45	0.56	99.15

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt D-long term.urb  
Project Name: Graton Alt D - Reduced Density Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.09	1.28	1.08	0	0.00
Hearth - No summer emissions					
Landscaping	0.18	0.02	1.26	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.05	-	-	-	-
TOTALS(lbs/day, unmitigated)	0.32	1.30	2.34	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	100.08	169.35	1,643.84	2.99	530.77
Hotel	3.00	3.99	38.70	0.07	12.50
TOTAL EMISSIONS (lbs/day)	103.08	173.34	1,682.54	3.06	543.27

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreeage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	293.00	11,552.99
Hotel		2.72 trips/rooms	100.00	272.00
Sum of Total Trips				11,824.99
Total Vehicle Miles Traveled				360,124.90

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			

% of Trips - Commercial (by land use)

Casino	5.0	2.5	92.5
Hotel	5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The landscape year changed from 2005 to 2020.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2020.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt E-near term cor  
Project Name: Graton Alt E- Business Park Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (lbs/day,unmitigated)	13.57	98.96	108.17	0.04	61.10	4.01	57.09
*** 2008 *** TOTALS (lbs/day,unmitigated)	60.21	38.67	54.70	0.00	1.86	1.64	0.22
*** 2009 *** TOTALS (lbs/day,unmitigated)	2.66	14.31	19.44	0.00	0.39	0.39	0.00



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt E-near term con  
Project Name: Graton Alt E- Business Park Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (tpy, unmitigated)	0.88	6.22	6.91	0.00	2.83	0.25	2.58
*** 2008 *** TOTALS (tpy, unmitigated)	1.38	4.41	6.21	0.00	0.20	0.18	0.02
*** 2009 *** TOTALS (tpy, unmitigated)	0.02	0.15	0.21	0.00	0.00	0.00	0.00

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt E-near term con  
 Project Name: Graton Alt E- Business Park Near Term Const  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007  
 Construction Duration: 20  
 Total Land Use Area to be Developed: 66 acres  
 Maximum Acreage Disturbed Per Day: 5.7 acres  
 Single Family Units: 0 Multi-Family Units: 0  
 Retail/Office/Institutional/Industrial Square Footage: 500000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	6.64	-	6.64
Off-Road Diesel	10.75	79.71	81.01	-	3.45	3.45	0.00
On-Road Diesel	1.33	19.15	4.94	0.04	0.65	0.56	0.09
Worker Trips	0.06	0.10	1.73	0.00	0.01	0.00	0.01
Maximum lbs/day	12.14	98.96	87.68	0.04	10.75	4.01	6.74
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	57.00	-	57.00
Off-Road Diesel	12.45	79.69	103.54	-	3.15	3.15	0.00
On-Road Diesel	1.07	18.62	4.00	0.03	0.53	0.45	0.08
Worker Trips	0.05	0.03	0.63	0.00	0.01	0.00	0.01
Maximum lbs/day	13.57	98.34	108.17	0.03	60.69	3.60	57.09
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	5.23	39.92	38.72	-	1.78	1.78	0.00
Bldg Const Worker Trips	1.22	0.74	15.63	0.00	0.23	0.01	0.22
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	6.45	40.66	54.35	0.00	2.01	1.79	0.22
Max lbs/day all phases	13.57	98.96	108.17	0.04	61.10	4.01	57.09
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	5.23	37.98	40.13	-	1.62	1.62	0.00
Bldg Const Worker Trips	1.12	0.69	14.57	0.00	0.23	0.01	0.22
Arch Coatings Off-Gas	59.09	-	-	-	-	-	-
Arch Coatings Worker Trips	1.12	0.69	14.57	0.00	0.23	0.01	0.22
Asphalt Off-Gas	0.34	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	12.97	19.01	-	0.36	0.36	0.00
Asphalt On-Road Diesel	0.09	1.47	0.32	0.00	0.04	0.04	0.00
Asphalt Worker Trips	0.01	0.01	0.15	0.00	0.00	0.00	0.00
Maximum lbs/day	60.21	38.67	54.70	0.00	1.86	1.64	0.22
Max lbs/day all phases	60.21	38.67	54.70	0.00	1.86	1.64	0.22
*** 2009***							

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.34	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	12.97	19.01	-	0.36	0.36	0.00
Asphalt On-Road Diesel	0.08	1.34	0.30	0.00	0.03	0.03	0.00
Asphalt Worker Trips	0.01	0.01	0.13	0.00	0.00	0.00	0.00
Maximum lbs/day	2.66	14.31	19.44	0.00	0.39	0.39	0.00
Max lbs/day all phases	2.66	14.31	19.44	0.00	0.39	0.39	0.00

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Jun '07  
Phase 1 Duration: 1 months  
Building Volume Total (cubic feet): 210000  
Building Volume Daily (cubic feet): 15813.06  
On-Road Truck Travel (VMT): 879  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
2	Rubber Tired Dozers	352	0.590	8.0
1	Rubber Tired Loaders	165	0.465	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07  
Phase 2 Duration: 4 months  
On-Road Truck Travel (VMT): 710  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Crawler Tractors	143	0.575	8.0
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Rubber Tired Loaders	165	0.465	8.0
1	Scrapers	313	0.660	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Nov '07  
Phase 3 Duration: 15 months  
Start Month/Year for SubPhase Building: Nov '07  
SubPhase Building Duration: 12 months  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
2	Other Equipment	190	0.620	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '08

SubPhase Architectural Coatings Duration: 1 months

Start Month/Year for SubPhase Asphalt: Dec '08

SubPhase Asphalt Duration: 2 months

Acres to be Paved: 5.7

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0  
The Primary Trip % for Office park changed from 80 to 100  
The Diverted Trip % for Office park changed from 15 to 0  
The Pass-By Trip % for Office park changed from 5 to 0

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths  
Site Grading Truck Haul Capacity (yds3) changed from 20 to 12  
Site Grading Miles/Round Trip changed from 20 to 5  
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013  
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt E-near term.urb  
Project Name: Graton Alt E- Business Park Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	0.84	1.78	2.93	0.00	0.01
TOTALS (lbs/day, mitigated)	0.77	1.42	2.34	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	60.23	68.04	718.45	0.49	69.52
TOTALS (lbs/day, mitigated)	57.42	64.48	680.71	0.47	65.85

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	61.07	69.82	721.38	0.49	69.52
TOTALS (lbs/day, mitigated)	58.19	65.90	683.06	0.47	65.85

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt E-near term.urb  
Project Name: Graton Alt E- Business Park Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.11	0.32	0.40	0.00	0.00
TOTALS (tpy, mitigated)	0.10	0.26	0.32	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	11.49	14.53	135.21	0.08	12.69
TOTALS (tpy, mitigated)	10.93	13.77	128.14	0.08	12.02

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	11.60	14.85	135.61	0.08	12.69
TOTALS (tpy, mitigated)	11.03	14.03	128.46	0.08	12.02

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt E-near term.urb  
Project Name: Graton Alt E- Business Park Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.13	1.77	1.49	0	0.00
Hearth - No summer emissions					
Landscaping	0.22	0.01	1.44	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.49	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.84	1.78	2.93	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.10	1.42	1.19	0	0.00
Hearth - No summer emissions					
Landscaping	0.18	0.01	1.15	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.49	-	-	-	-
TOTALS (lbs/day, mitigated)	0.77	1.42	2.34	0.00	0.01

Area Source Mitigation Measures

- Residential Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Commercial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Industrial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Residential Electric Landscape Maintenance Equipment  
Percent Reduction: 20
- Commercial/Industrial Electric Landscape Maintenance Equipment  
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Regnl shop. center	28.53	33.93	351.15	0.24	33.72
General light industry	31.71	34.10	367.30	0.25	35.80
TOTAL EMISSIONS (lbs/day)	60.23	68.04	718.45	0.49	69.52

Does not include correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Regnl shop. center		42.94 trips/1000 sq. ft.	100.00	4,294.00
General light industry		6.97 trips/1000 sq. ft.	400.00	2,788.00
			Sum of Total Trips	7,082.00
			Total Vehicle Miles Traveled	45,473.18

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	4.6	6.1	11.8	5.0	5.0
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Regnl shop. center				2.0	1.0	97.0
General light industry				50.0	25.0	25.0



MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Regnl shop. center	27.29	32.40	335.25	0.23	32.19
General light industry	30.13	32.08	345.46	0.24	33.66
TOTAL EMISSIONS (lbs/day)	57.42	64.48	680.71	0.47	65.85
PERCENTAGE REDUCTION %	5	5	5	5	5

Does not include correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Regnl shop. center (Worker Trip Rate: 40.09)		41.04 trips/1000 sq. ft.	100.00	4,103.81
General light industry (Worker Trip Rate: 6.51)		6.66 trips/1000 sq. ft.	400.00	2,664.51
Sum of Total Trips				6,768.32
Total Vehicle Miles Traveled				43,074.38

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	4.6	6.1	11.8	5.0	5.0
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	27.3	21.2	51.5			

% of Trips - Commercial (by land use)

Regnl shop. center	2.0	1.0	97.0
General light industry	50.0	25.0	25.0

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures  
=====

Non-Residential Local-Serving Retail Mitigation  
-----

Percent Reduction in Trips is 2%  
Inputs Selected:  
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation  
-----

Percent Reduction in Trips is 0.25%  
Inputs Selected:  
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24  
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0  
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Pedestrian/Bicycle Friendliness Mitigation  
-----

Percent Reduction in Trips is 2.18%  
Inputs Selected:  
The Number of Intersections per Square Mile is 100  
The Percent of Streets with Sidewalks on One Side is 50%  
The Percent of Streets with Sidewalks on Both Sides is 10%  
The Percent of Arterials/Collectors with Bike Lanes or where Suitable,  
Direct Parallel Routes Exist is 30%

Non-Residential Free Transit Passes Mitigation  
-----

Percent Reduction in Trips is 0.06%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The Free Transit Passes checkbox was selected.

Non-Residential Other Transportation Demand Measures Mitigation  
-----

Percent Reduction in Trips is 2.24%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The 'Secure Bike Parking' measure was selected  
The 'Showers/Changing Facilities Provided' measure was selected  
The 'Guaranteed Ride Home Program Provided' measure was selected  
The 'Information provided on Transportation Alternatives' measure was selected  
The 'Dedicated Employee Transportation Coordinator' measure was selected  
The 'Carpool Matching Programs' measure was selected  
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The area source mitigation measure option switch changed from off to on.  
The landscape year changed from 2005 to 2007.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
Mitigation measure Residential Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Industrial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Residential Electric Landscape Maintenance Equipment  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The pass by trips option switch changed from on to off.  
The mitigation option switch changed from off to on.  
The operational emission year changed from 2005 to 2008.  
The home based work selection item changed from 7 to 6.  
The home based shopping selection item changed from 7 to 6.  
The home based other selection item changed from 7 to 6.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work selection item changed from 7 to 6.  
The commercial based customer selection item changed from 7 to 6.  
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.  
The Res and Non-Res Transit Service Mitigation changed from off to on.  
The Res and Non-Res Ped/Bike Mitigation changed from off to on.  
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt E-long term.urb  
Project Name: Graton Alt E- Business Park Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.80	1.79	2.75	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	24.22	23.80	273.96	0.49	69.21

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	25.02	25.59	276.71	0.49	69.22

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt E-long term.urb  
Project Name: Graton Alt E- Business Park Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.10	0.33	0.39	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	4.49	5.08	51.04	0.08	12.63

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	4.60	5.40	51.42	0.08	12.63

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt E-long term.urb  
Project Name: Graton Alt E- Business Park Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.13	1.77	1.49	0	0.00
Hearth - No summer emissions					
Landscaping	0.18	0.02	1.26	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.49	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.80	1.79	2.75	0.00	0.01

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Regnl shop. center	11.40	11.92	133.76	0.24	33.57
General light industry	12.82	11.88	140.20	0.25	35.64
TOTAL EMISSIONS (lbs/day)	24.22	23.80	273.96	0.49	69.21

Does not include correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreeage	Trip Rate	No. Units	Total Trips
Regnl shop. center		42.94 trips/1000 sq. ft.	100.00	4,294.00
General light industry		6.97 trips/1000 sq. ft.	400.00	2,788.00
		Sum of Total Trips		7,082.00
		Total Vehicle Miles Traveled		45,473.18

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	4.6	6.1	11.8	5.0	5.0
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	27.3	21.2	51.5			

% of Trips - Commercial (by land use)

Regnl shop. center	2.0	1.0	97.0
General light industry	50.0	25.0	25.0

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The landscape year changed from 2005 to 2020.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The pass by trips option switch changed from on to off.  
The operational emission year changed from 2005 to 2020.  
The home based work selection item changed from 7 to 6.  
The home based shopping selection item changed from 7 to 6.  
The home based other selection item changed from 7 to 6.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work selection item changed from 7 to 6.  
The commercial based customer selection item changed from 7 to 6.



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt F-near term cor  
Project Name: Graton Alt F- Lakeview Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMPAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (lbs/day,unmitigated)	35.67	294.10	261.67	0.23	75.26	10.71	64.55
*** 2008 *** TOTALS (lbs/day,unmitigated)	17.23	109.63	143.07	0.00	4.52	4.28	0.24
*** 2009 *** TOTALS (lbs/day,unmitigated)	34.09	105.14	144.84	0.00	4.21	3.97	0.24

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt F-near term cor  
Project Name: Graton Alt F- Lakeview Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (tpy, unmitigated)	1.53	10.77	12.11	0.00	1.16	0.43	0.73
*** 2008 *** TOTALS (tpy, unmitigated)	2.26	14.45	18.70	0.00	0.59	0.56	0.03
*** 2009 *** TOTALS (tpy, unmitigated)	1.57	5.01	7.17	0.00	0.20	0.18	0.02

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt F-near term cor  
 Project Name: Graton Alt F- Lakeview Near Term Const  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007  
 Construction Duration: 27  
 Total Land Use Area to be Developed: 79 acres  
 Maximum Acreage Disturbed Per Day: 6.4 acres  
 Single Family Units: 0 Multi-Family Units: 0  
 Retail/Office/Institutional/Industrial Square Footage: 558000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	64.00	-	64.00
Off-Road Diesel	27.87	184.73	226.96	-	7.51	7.51	0.00
On-Road Diesel	7.56	108.99	28.13	0.23	3.72	3.19	0.53
Worker Trips	0.24	0.38	6.58	0.00	0.03	0.01	0.02
Maximum lbs/day	35.67	294.10	261.67	0.23	75.26	10.71	64.55
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	16.00	113.54	124.19	-	4.71	4.71	0.00
Bldg Const Worker Trips	1.33	0.81	17.14	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	17.34	114.35	141.33	0.00	4.97	4.73	0.24
Max lbs/day all phases	35.67	294.10	261.67	0.23	75.26	10.71	64.55
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	16.00	108.88	127.09	-	4.26	4.26	0.00
Bldg Const Worker Trips	1.23	0.76	15.98	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	17.23	109.63	143.07	0.00	4.52	4.28	0.24
Max lbs/day all phases	17.23	109.63	143.07	0.00	4.52	4.28	0.24
*** 2009***							

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	16.00	104.44	130.11	-	3.96	3.96	0.00
Bldg Const Worker Trips	1.12	0.69	14.74	0.00	0.25	0.01	0.24
Arch Coatings Off-Gas	32.97	-	-	-	-	-	-
Arch Coatings Worker Trips	1.12	0.69	14.74	0.00	0.25	0.01	0.24
Asphalt Off-Gas	0.25	-	-	-	-	-	-
Asphalt Off-Road Diesel	7.41	45.21	61.84	-	1.46	1.46	0.00
Asphalt On-Road Diesel	0.06	1.00	0.22	0.00	0.02	0.02	0.00
Asphalt Worker Trips	0.05	0.03	0.60	0.00	0.01	0.00	0.01
Maximum lbs/day	34.09	105.14	144.84	0.00	4.21	3.97	0.24
Max lbs/day all phases	34.09	105.14	144.84	0.00	4.21	3.97	0.24

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jun '07  
Phase 2 Duration: 1 months  
On-Road Truck Travel (VMT): 5000  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Crawler Tractors	143	0.575	8.0
3	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
2	Other Equipment	190	0.620	8.0
2	Rubber Tired Loaders	165	0.465	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jul '07  
Phase 3 Duration: 26 months  
Start Month/Year for SubPhase Building: Jul '07  
SubPhase Building Duration: 21 months  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
3	Concrete/Industrial saws	84	0.730	8.0
2	Cranes	190	0.430	8.0
3	Other Equipment	190	0.620	8.0
3	Rough Terrain Forklifts	94	0.475	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '09

SubPhase Architectural Coatings Duration: 2 months

Start Month/Year for SubPhase Asphalt: Jun '09

SubPhase Asphalt Duration: 3 months

Acres to be Paved: 6.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Pavers	132	0.590	8.0
2	Paving Equipment	111	0.530	8.0
3	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0  
The Primary Trip % for Office park changed from 80 to 100  
The Diverted Trip % for Office park changed from 15 to 0  
The Pass-By Trip % for Office park changed from 5 to 0

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths  
Site Grading Truck Haul Capacity (yds3) changed from 20 to 12  
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013  
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt F-near Term.urb  
Project Name: Graton Alt F- Lakeview Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	2.60	3.86	4.68	0.00	0.01
TOTALS (lbs/day, mitigated)	2.50	3.09	3.74	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	377.57	726.12	6,354.58	4.41	779.23
TOTALS (lbs/day, mitigated)	361.67	694.97	6,081.33	4.22	745.80

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	380.18	729.98	6,359.26	4.41	779.24
TOTALS (lbs/day, mitigated)	364.17	698.05	6,085.08	4.22	745.81

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt F-near term.urb  
Project Name: Graton Alt F- Lakeview Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.35	0.70	0.72	0.00	0.00
TOTALS (tpy, mitigated)	0.33	0.56	0.58	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	77.19	155.05	1,176.36	0.80	142.21
TOTALS (tpy, mitigated)	73.91	148.40	1,125.78	0.77	136.11

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	77.54	155.75	1,177.08	0.80	142.21
TOTALS (tpy, mitigated)	74.25	148.96	1,126.36	0.77	136.11

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt F-near term.url  
Project Name: Graton Alt F- Lakeview Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.28	3.85	3.23	0	0.01
Hearth - No summer emissions					
Landscaping	0.22	0.01	1.44	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.10	-	-	-	-
TOTALS (lbs/day, unmitigated)	2.60	3.86	4.68	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.22	3.08	2.59	0	0.01
Hearth - No summer emissions					
Landscaping	0.18	0.01	1.15	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.10	-	-	-	-
TOTALS (lbs/day, mitigated)	2.50	3.09	3.74	0.00	0.01

Area Source Mitigation Measures

- Residential Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Commercial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Industrial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Residential Electric Landscape Maintenance Equipment  
Percent Reduction: 20
- Commercial/Industrial Electric Landscape Maintenance Equipment  
Percent Reduction: 20



UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	356.05	691.07	6,047.82	4.20	741.61
Hotel	21.52	35.05	306.76	0.21	37.62
<b>TOTAL EMISSIONS (lbs/day)</b>	<b>377.57</b>	<b>726.12</b>	<b>6,354.58</b>	<b>4.41</b>	<b>779.23</b>

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	408.00	16,087.44
Hotel		2.72 trips/rooms	300.00	816.00
			<b>Sum of Total Trips</b>	<b>16,903.44</b>
			<b>Total Vehicle Miles Traveled</b>	<b>514,786.87</b>

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			

% of Trips - Commercial (by land use)

Casino	5.0	2.5	92.5
Hotel	5.0	2.5	92.5

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	340.92	661.42	5,787.76	4.02	709.80
Hotel	20.75	33.55	293.57	0.20	36.00
TOTAL EMISSIONS (lbs/day)	361.67	694.97	6,081.33	4.22	745.80
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreeage	Trip Rate	No. Units	Total Trips
Casino		37.75 trips/1000 sq. ft.	408.00	15,403.35
(Worker Trip Rate: 36.89)				
Hotel		2.60 trips/rooms	300.00	781.30
(Worker Trip Rate: 2.54)				
Sum of Total Trips				16,184.65
Total Vehicle Miles Traveled				492,702.78

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures  
=====

Non-Residential Local-Serving Retail Mitigation  
-----

Percent Reduction in Trips is 2%  
Inputs Selected:  
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation  
-----

Percent Reduction in Trips is 0.24%  
Inputs Selected:  
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24  
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0  
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Pedestrian/Bicycle Friendliness Mitigation  
-----

Percent Reduction in Trips is 2.01%  
Inputs Selected:  
The Number of Intersections per Square Mile is 25  
The Percent of Streets with Sidewalks on One Side is 50%  
The Percent of Streets with Sidewalks on Both Sides is 10%  
The Percent of Arterials/Collectors with Bike Lanes or where Suitable,  
Direct Parallel Routes Exist is 30%

Non-Residential Free Transit Passes Mitigation  
-----

Percent Reduction in Trips is 0.06%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The Free Transit Passes checkbox was selected.

Non-Residential Other Transportation Demand Measures Mitigation  
-----

Percent Reduction in Trips is 2.23%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The 'Guaranteed Ride Home Program Provided' measure was selected  
The 'Information provided on Transportation Alternatives' measure was selected  
The 'Dedicated Employee Transportation Coordinator' measure was selected  
The 'Carpool Matching Programs' measure was selected  
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The area source mitigation measure option switch changed from off to on.  
The landscape year changed from 2005 to 2007.  
Mitigation measure Residential Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Industrial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Residential Electric Landscape Maintenance Equipment  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The mitigation option switch changed from off to on.  
The operational emission year changed from 2005 to 2008.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.  
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.  
The Res and Non-Res Transit Service Mitigation changed from off to on.  
The Res and Non-Res Ped/Bike Mitigation changed from off to on.  
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt F-long term.urb  
Project Name: Graton Alt F- Lakeview Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	2.56	3.87	4.50	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	148.37	247.79	2,405.13	4.38	776.59

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	150.93	251.65	2,409.63	4.38	776.60

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt F-long term.urb  
Project Name: Graton Alt F- Lakeview Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES:

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.34	0.70	0.70	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	30.23	52.91	441.91	0.79	141.73

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	30.58	53.61	442.61	0.79	141.73

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt F-long term.urb  
Project Name: Graton Alt F- Lakeview Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)	ROG	NOx	CO	SO2	PM10
Natural Gas	0.28	3.85	3.23	0	0.01
Hearth - No summer emissions					
Landscaping	0.18	0.02	1.26	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	2.10	-	-	-	-
TOTALS(lbs/day,unmitigated)	2.56	3.87	4.50	0.00	0.01

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	139.36	235.82	2,289.03	4.17	739.10
Hotel	9.01	11.96	116.11	0.21	37.49
<b>TOTAL EMISSIONS (lbs/day)</b>	<b>148.37</b>	<b>247.79</b>	<b>2,405.13</b>	<b>4.38</b>	<b>776.59</b>

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	408.00	16,087.44
Hotel		2.72 trips/rooms	300.00	816.00
Sum of Total Trips				16,903.44
Total Vehicle Miles Traveled				514,786.87

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5



Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The landscape year changed from 2005 to 2020.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2020.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt G-near term con  
Project Name: Graton Alt G - NWSP Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (lbs/day,unmitigated)	17.86	157.11	124.03	0.16	100.81	5.42	95.39
*** 2008 *** TOTALS (lbs/day,unmitigated)	6.42	38.72	55.63	0.00	1.87	1.64	0.23
*** 2009 *** TOTALS (lbs/day,unmitigated)	50.24	53.88	90.11	0.01	2.46	1.99	0.47

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt G-near term cor  
Project Name: Graton Alt G - NWSP Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (tpy, unmitigated)	0.88	6.96	6.49	0.00	2.89	0.27	2.62
*** 2008 *** TOTALS (tpy, unmitigated)	0.84	5.09	7.16	0.00	0.24	0.21	0.03
*** 2009 *** TOTALS (tpy, unmitigated)	1.27	2.21	3.61	0.00	0.10	0.08	0.02

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt G-near term con  
 Project Name: Graton Alt G - NWSP Near Term Const  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007  
 Construction Duration: 24  
 Total Land Use Area to be Developed: 66 acres  
 Maximum Acreage Disturbed Per Day: 9.5 acres  
 Single Family Units: 0 Multi-Family Units: 151  
 Retail/Office/Institutional/Industrial Square Footage: 495000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	6.64	-	6.64
Off-Road Diesel	10.75	79.71	81.01	-	3.45	3.45	0.00
On-Road Diesel	1.33	19.15	4.94	0.04	0.65	0.56	0.09
Worker Trips	0.09	0.11	2.05	0.00	0.01	0.00	0.01
Maximum lbs/day	12.17	98.97	88.00	0.04	10.75	4.01	6.74
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	95.00	-	95.00
Off-Road Diesel	12.45	79.69	103.54	-	3.15	3.15	0.00
On-Road Diesel	5.37	77.40	19.98	0.16	2.65	2.27	0.38
Worker Trips	0.04	0.02	0.51	0.00	0.01	0.00	0.01
Maximum lbs/day	17.86	157.11	124.03	0.16	100.81	5.42	95.39
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	5.23	39.92	38.72	-	1.78	1.78	0.00
Bldg Const Worker Trips	1.29	0.79	16.63	0.00	0.24	0.01	0.23
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	6.53	40.71	55.35	0.00	2.02	1.79	0.23
Max lbs/day all phases	17.86	157.11	124.03	0.16	100.81	5.42	95.39
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	5.23	37.98	40.13	-	1.62	1.62	0.00
Bldg Const Worker Trips	1.19	0.73	15.50	0.00	0.24	0.01	0.23
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	6.42	38.72	55.63	0.00	1.87	1.64	0.23
Max lbs/day all phases	6.42	38.72	55.63	0.00	1.87	1.64	0.23
*** 2009***							

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	5.23	36.00	41.59	-	1.52	1.52	0.00
Bldg Const Worker Trips	1.08	0.67	14.29	0.00	0.24	0.01	0.23
Arch Coatings Off-Gas	39.49	-	-	-	-	-	-
Arch Coatings Worker Trips	1.08	0.67	14.29	0.00	0.24	0.01	0.23
Asphalt Off-Gas	0.91	-	-	-	-	-	-
Asphalt Off-Road Diesel	2.24	12.97	19.01	-	0.36	0.36	0.00
Asphalt On-Road Diesel	0.21	3.56	0.79	0.01	0.09	0.09	0.00
Asphalt Worker Trips	0.01	0.01	0.13	0.00	0.00	0.00	0.00
Maximum lbs/day	50.24	53.88	90.11	0.01	2.46	1.99	0.47

Max lbs/day all phases	50.24	53.88	90.11	0.01	2.46	1.99	0.47
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Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Jun '07  
 Phase 1 Duration: 1.2 months  
 Building Volume Total (cubic feet): 210000  
 Building Volume Daily (cubic feet): 15813.06  
 On-Road Truck Travel (VMT): 879  
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
2	Rubber Tired Dozers	352	0.590	8.0
1	Rubber Tired Loaders	165	0.465	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07  
 Phase 2 Duration: 2.4 months  
 On-Road Truck Travel (VMT): 3550.5  
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Crawler Tractors	143	0.575	8.0
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Rubber Tired Loaders	165	0.465	8.0
1	Scrapers	313	0.660	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Sep '07  
 Phase 3 Duration: 20.4 months  
 Start Month/Year for SubPhase Building: Sep '07  
 SubPhase Building Duration: 20.4 months  
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
2	Other Equipment	190	0.620	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '09  
 SubPhase Architectural Coatings Duration: 2 months

Start Month/Year for SubPhase Asphalt: May '09

SubPhase Asphalt Duration: 1 months

Acres to be Paved: 7.6

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise  
have changed from the defaults 6.9/9.44 to 7.67/15.3  
The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0  
The Primary Trip % for Office park changed from 80 to 100  
The Diverted Trip % for Office park changed from 15 to 0  
The Pass-By Trip % for Office park changed from 5 to 0

Changes made to the default values for Construction

Site Grading Truck Haul Capacity (yds3) changed from 20 to 12  
Site Grading Miles/Round Trip changed from 20 to 15  
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013  
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt G-near term.url  
Project Name: Graton Alt G - NWSF Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	8.70	5.93	5.95	0.00	0.02
TOTALS (lbs/day, mitigated)	8.59	4.97	4.85	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	129.27	127.28	1,324.25	0.84	116.94
TOTALS (lbs/day, mitigated)	126.22	124.08	1,290.86	0.82	113.99

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	137.97	133.21	1,330.20	0.84	116.96
TOTALS (lbs/day, mitigated)	134.81	129.05	1,295.72	0.82	114.00

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt G-near term.url  
Project Name: Graton Alt G - NWSP Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	1.53	1.08	0.95	0.00	0.00
TOTALS (tpy, mitigated)	1.52	0.91	0.78	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	25.35	27.04	258.48	0.14	21.34
TOTALS (tpy, mitigated)	24.74	26.36	251.98	0.14	20.80

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	26.89	28.12	259.43	0.14	21.34
TOTALS (tpy, mitigated)	26.26	27.26	252.76	0.14	20.80



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt G-near term.url  
Project Name: Graton Alt G - NWSP Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.44	5.92	4.50	0	0.01
Hearth - No summer emissions					
Landscaping	0.22	0.01	1.44	0.00	0.00
Consumer Prdcts	7.39	-	-	-	-
Architectural Coatings	0.66	-	-	-	-
TOTALS (lbs/day, unmitigated)	8.70	5.93	5.95	0.00	0.02

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.37	4.97	3.70	0	0.01
Hearth - No summer emissions					
Landscaping	0.18	0.01	1.15	0.00	0.00
Consumer Prdcts	7.39	-	-	-	-
Architectural Coatings	0.66	-	-	-	-
TOTALS (lbs/day, mitigated)	8.59	4.97	4.85	0.00	0.01

Area Source Mitigation Measures

Commercial Increase Efficiency Beyond Title 24  
Percent Reduction: 20  
Commercial/Industrial Electric Landscape Maintenance Equipment  
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS:

	ROG	NOx	CO	SO2	PM10
Apartments low rise	10.48	10.11	110.46	0.07	10.24
Regnl shop. center	118.79	117.17	1,213.79	0.77	106.70
<b>TOTAL EMISSIONS (lbs/day)</b>	<b>129.27</b>	<b>127.28</b>	<b>1,324.25</b>	<b>0.84</b>	<b>116.94</b>

Includes correction for passby trips.  
Includes the following double counting adjustment for internal trips:  
Residential trips: 0.00 % reduction. Nonresidential trips: 0.00 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise	9.44	6.90 trips/dwelling unit	151.00	1,041.90
Regnl shop. center		42.94 trips/1000 sq. ft.	495.00	21,255.30
Sum of Total Trips				22,297.20
Total Vehicle Miles Traveled				76,396.96

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	4.6	6.1	11.8	5.0	5.0
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Regnl shop. center				2.0	1.0	97.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Apartments low rise	10.26	9.86	107.75	0.07	9.99
Regnl shop. center	115.96	114.22	1,183.12	0.75	104.00
TOTAL EMISSIONS (lbs/day)	126.22	124.08	1,290.86	0.82	113.99
PERCENTAGE REDUCTION %	2	3	3	3	3

Includes correction for passby trips.

Includes the following double counting adjustment for internal trips:

Residential trips: 0.00 % reduction. Nonresidential trips: 0.00 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise	9.44	6.73 trips/dwelling unit	151.00	1,016.59
Regnl shop. center		41.90 trips/1000 sq. ft.	495.00	20,738.96
(Worker Trip Rate: 40.93)				
Sum of Total Trips				21,755.55
Total Vehicle Miles Traveled				74,467.29

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	4.6	6.1	11.8	5.0	5.0
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	27.3	21.2	51.5			

% of Trips - Commercial (by land use)

Regnl shop. center	2.0	1.0	97.0
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MITIGATION OPTIONS SELECTED

Residential Mitigation Measures  
=====

Residential Local-Serving Retail Mitigation  
-----

Percent Reduction in Trips is 0% (calculated as a % of 9.57 trips/day)  
Note that the above percent is applied to the 'double counting adjusted' trip rate to get Mitigated Trips  
Inputs Selected:  
The Presence of Local-Serving Retail checkbox was NOT selected.

Residential Transit Service Mitigation  
-----

Percent Reduction in Trips is 0.25% (calculated as a % of 9.57 trips/day)  
Note that the above percent is applied to the 'double counting adjusted' trip rate to get Mitigated Trips  
Inputs Selected:  
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24  
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0  
The Number of Dedicated Daily Shuttle Trips is 0

Residential Pedestrian/Bicycle Friendliness Mitigation  
-----

Percent Reduction in Trips is 2.18% (calculated as a % of 9.57 trips/day)  
Note that the above percent is applied to the 'double counting adjusted' trip rate to get Mitigated Trips  
Inputs Selected:  
The Number of Intersections per Square Mile is 100  
The Percent of Streets with Sidewalks on One Side is 50%  
The Percent of Streets with Sidewalks on Both Sides is 10%  
The Percent of Arterials/Collectors with Bike Lanes or where Suitable, Direct Parallel Routes Exist is 30%

Residential Free Transit Passes Mitigation  
-----

Percent Reduction in Trips is 0.06% (calculated as a % of 9.57 trips/day)  
Note that the above percent is applied ONLY to worker trips. And the 'double counting adjusted' trip rate is used to get the number of Mitigated Trips  
Inputs Selected:  
The Free Transit Passes checkbox was selected.

Non-Residential Mitigation Measures  
=====

Non-Residential Local-Serving Retail Mitigation  
-----

Percent Reduction in Trips is 0%  
Inputs Selected:  
The Presence of Local-Serving Retail checkbox was NOT selected.

Non-Residential Transit Service Mitigation  
-----

Percent Reduction in Trips is 0.25%  
Inputs Selected:  
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24  
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0  
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Pedestrian/Bicycle Friendliness Mitigation  
-----

Percent Reduction in Trips is 2.18%  
Inputs Selected:  
The Number of Intersections per Square Mile is 100  
The Percent of Streets with Sidewalks on One Side is 50%  
The Percent of Streets with Sidewalks on Both Sides is 10%  
The Percent of Arterials/Collectors with Bike Lanes or where Suitable, Direct Parallel Routes Exist is 30%

Non-Residential Free Transit Passes Mitigation  
-----

Percent Reduction in Trips is 0.06%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The Free Transit Passes checkbox was selected.

Non-Residential Other Transportation Demand Measures Mitigation

-----  
Percent Reduction in Trips is 2.24%

Note that the above percent is applied ONLY to worker trips.

Inputs Selected:

The 'Secure Bike Parking' measure was selected

The 'Showers/Changing Facilities Provided' measure was selected

The 'Guaranteed Ride Home Program Provided' measure was selected

The 'Information provided on Transportation Alternatives' measure was selected

The 'Dedicated Employee Transportation Coordinator' measure was selected

The 'Carpool Matching Programs' measure was selected

The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The area source mitigation measure option switch changed from off to on.  
The landscape year changed from 2005 to 2007.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The double counting option switch changed from off to on.  
The mitigation option switch changed from off to on.  
The operational emission year changed from 2005 to 2008.  
The home based work selection item changed from 7 to 6.  
The home based shopping selection item changed from 7 to 6.  
The home based other selection item changed from 7 to 6.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work selection item changed from 7 to 6.  
The commercial based customer selection item changed from 7 to 6.  
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.  
The Res and Non-Res Transit Service Mitigation changed from off to on.  
The Res and Non-Res Ped/Bike Mitigation changed from off to on.  
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt G-long term.url  
Project Name: Graton Alt G - NWSP Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	8.66	5.94	5.77	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	53.55	45.55	510.21	0.84	117.56

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	62.22	51.50	515.98	0.84	117.57

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt G-long term.url  
Project Name: Graton Alt G - NWSP Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	1.53	1.08	0.94	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	10.21	9.66	98.60	0.14	21.45

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	11.74	10.74	99.53	0.14	21.46



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt G-long term.url  
Project Name: Graton Alt G - NWSP Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMPAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)	ROG	NOx	CO	SO2	PM10
Natural Gas	0.44	5.92	4.50	0	0.01
Hearth - No summer emissions					
Landscaping	0.18	0.02	1.26	0.00	0.00
Consumer Prdcts	7.39	-	-	-	-
Architectural Coatings	0.66	-	-	-	-
TOTALS (lbs/day, unmitigated)	8.66	5.94	5.77	0.00	0.01

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Apartments low rise	4.72	3.93	46.96	0.08	11.33
Commercial	48.84	41.62	463.25	0.76	106.23
<b>TOTAL EMISSIONS (lbs/day)</b>	<b>53.55</b>	<b>45.55</b>	<b>510.21</b>	<b>0.84</b>	<b>117.56</b>

Includes correction for passby trips.

Includes the following double counting adjustment for internal trips:

Residential trips: 0.00 % reduction. Nonresidential trips: 0.00 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise	15.30	7.67 trips/dwelling unit	151.00	1,158.17
Commercial		42.94 trips/1000 sq. ft.	495.00	21,255.30
Sum of Total Trips				22,413.47
Total Vehicle Miles Traveled				77,143.94

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40		0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30		0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40		0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30		0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10		0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00		0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80		0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	1.60		50.00	50.00	0.00
School Bus	0.10		0.00	0.00	100.00
Motor Home	1.50		0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	4.6	6.1	11.8	5.0	5.0
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)				2.0	1.0	97.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/9.44 to 7.67/15.3  
The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The landscape year changed from 2005 to 2020.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The double counting option switch changed from off to on.  
The operational emission year changed from 2005 to 2020.  
The home based work selection item changed from 7 to 6.  
The home based shopping selection/item changed from 7 to 6.  
The home based other selection item changed from 7 to 6.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work selection item changed from 7 to 6.  
The commercial based customer selection item changed from 7 to 6.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt H-near term cor  
Project Name: Graton Alt H - Reduced Density Wilfred Site Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	22.79	161.70	182.78	0.04	45.18	6.06	39.12
*** 2008 ***							
TOTALS (lbs/day,unmitigated)	32.45	99.55	128.90	0.00	4.02	3.72	0.30

URBEMIS 2002 For Windows 8.7.0

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Project Name: Graton Alt H - Reduced Density Wilfred Site Near Term Const  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (tpy, unmitigated)	1.53	10.75	12.09	0.00	2.65	0.42	2.23
*** 2008 *** TOTALS (tpy, unmitigated)	2.12	10.54	13.66	0.00	0.43	0.41	0.02

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt H-near term cor  
 Project Name: Graton Alt H - Reduced Density Wilfred Site Near Term Const  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007  
 Construction Duration: 24  
 Total Land Use Area to be Developed: 66 acres  
 Maximum Acreage Disturbed Per Day: 3.9 acres  
 Single Family Units: 0 Multi-Family Units: 0  
 Retail/Office/Institutional/Industrial Square Footage: 343000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	7.09	-	7.09
Off-Road Diesel	11.39	84.65	85.80	-	3.67	3.67	0.00
On-Road Diesel	1.42	20.44	5.27	0.04	0.70	0.60	0.10
Worker Trips	0.07	0.12	2.08	0.00	0.01	0.00	0.01
Maximum lbs/day	12.88	105.21	93.15	0.04	11.47	4.27	7.20
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	39.00	-	39.00
Off-Road Diesel	21.30	137.31	176.47	-	5.47	5.47	0.00
On-Road Diesel	1.40	24.34	5.22	0.04	0.69	0.59	0.10
Worker Trips	0.09	0.05	1.09	0.00	0.02	0.00	0.02
Maximum lbs/day	22.79	161.70	182.78	0.04	45.18	6.06	39.12
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.62	76.09	81.91	-	3.19	3.19	0.00
Bldg Const Worker Trips	0.85	0.51	10.87	0.00	0.16	0.01	0.15
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	11.47	76.60	92.77	0.00	3.35	3.20	0.15
Max lbs/day all phases	22.79	161.70	182.78	0.04	45.18	6.06	39.12
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.62	72.88	83.96	-	2.88	2.88	0.00
Bldg Const Worker Trips	0.78	0.48	10.13	0.00	0.16	0.01	0.15
Arch Coatings Off-Gas	20.27	-	-	-	-	-	-
Arch Coatings Worker Trips	0.78	0.48	10.13	0.00	0.16	0.01	0.15
Asphalt Off-Gas	0.15	-	-	-	-	-	-
Asphalt Off-Road Diesel	4.14	25.51	34.30	-	0.82	0.82	0.00
Asphalt On-Road Diesel	0.04	0.67	0.15	0.00	0.02	0.02	0.00
Asphalt Worker Trips	0.03	0.02	0.36	0.00	0.01	0.00	0.01
Maximum lbs/day	32.45	99.55	128.90	0.00	4.02	3.72	0.30
Max lbs/day all phases	32.45	99.55	128.90	0.00	4.02	3.72	0.30

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Jun '07

Phase 1 Duration: 1 months

Building Volume Total (cubic feet): 85540

Building Volume Daily (cubic feet): 16875

On-Road Truck Travel (VMT): 936

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
2	Rubber Tired Dozers	352	0.590	8.0
1	Rubber Tired Loaders	165	0.465	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07

Phase 2 Duration: 5 months

On-Road Truck Travel (VMT): 928

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Crawler Tractors	143	0.575	8.0
2	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
2	Rubber Tired Loaders	165	0.465	8.0
2	Scrapers	313	0.660	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Dec '07

Phase 3 Duration: 18 months

Start Month/Year for SubPhase Building: Dec '07

SubPhase Building Duration: 13 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Jan '08

SubPhase Architectural Coatings Duration: 2 months

Start Month/Year for SubPhase Asphalt: Mar '08

SubPhase Asphalt Duration: 3 months

Acres to be Paved: 3.9

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
2	Rollers	114	0.430	8.0

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0  
The Primary Trip % for Office park changed from 80 to 100  
The Diverted Trip % for Office park changed from 15 to 0  
The Pass-By Trip % for Office park changed from 5 to 0

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths  
Site Grading Truck Haul Capacity (yds3) changed from 20 to 12  
Site Grading Miles/Round Trip changed from 20 to 5  
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013  
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt H-near term.urb  
Project Name: Graton Alt H - Reduced Intensity Wilfred Site Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	0.36	1.29	2.52	0.00	0.01
TOTALS (lbs/day, mitigated)	0.30	1.03	2.02	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	262.87	507.97	4,445.42	3.09	545.12
TOTALS (lbs/day, mitigated)	251.28	485.27	4,246.39	2.95	520.77

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	263.23	509.26	4,447.94	3.09	545.13
TOTALS (lbs/day, mitigated)	251.58	486.31	4,248.40	2.95	520.77

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt H-near term.url  
Project Name: Graton Alt H - Reduced Intensity Wilfred Site Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.04	0.23	0.33	0.00	0.00
TOTALS (tpy, mitigated)	0.04	0.19	0.26	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	53.85	108.47	822.94	0.56	99.48
TOTALS (tpy, mitigated)	51.46	103.62	786.10	0.53	95.04

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	53.89	108.70	823.26	0.56	99.49
TOTALS (tpy, mitigated)	51.49	103.81	786.36	0.53	95.04

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt H-near term.url  
Project Name: Graton Alt H - Reduced Intensity Wilfred Site Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.09	1.28	1.08	0	0.00
Hearth - No summer emissions					
Landscaping	0.22	0.01	1.44	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.05	-	-	-	-
TOTALS(lbs/day, unmitigated)	0.36	1.29	2.52	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.07	1.03	0.86	0	0.00
Hearth - No summer emissions					
Landscaping	0.18	0.01	1.15	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.05	-	-	-	-
TOTALS (lbs/day, mitigated)	0.30	1.03	2.02	0.00	0.01

Area Source Mitigation Measures

Residential Increase Efficiency Beyond Title 24  
Percent Reduction: 20  
Commercial Increase Efficiency Beyond Title 24  
Percent Reduction: 20  
Industrial Increase Efficiency Beyond Title 24  
Percent Reduction: 20  
Residential Electric Landscape Maintenance Equipment  
Percent Reduction: 20  
Commercial/Industrial Electric Landscape Maintenance Equipment  
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	255.70	496.28	4,343.16	3.01	532.58
Hotel	7.17	11.68	102.25	0.07	12.54
TOTAL EMISSIONS (lbs/day)	262.87	507.97	4,445.42	3.09	545.12

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	293.00	11,552.99
Hotel		2.72 trips/rooms	100.00	272.00
Sum of Total Trips				11,824.99
Total Vehicle Miles Traveled				360,124.90

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			

% of Trips - Commercial (by land use)

Casino	5.0	2.5	92.5
Hotel	5.0	2.5	92.5

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	244.38	474.11	4,148.71	2.88	508.79
Hotel	6.91	11.16	97.68	0.07	11.98
TOTAL EMISSIONS (lbs/day)	251.28	485.27	4,246.39	2.95	520.77
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

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

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino (Worker Trip Rate: 36.81)		37.68 trips/1000 sq. ft.	293.00	11,041.28
Hotel (Worker Trip Rate: 2.54)		2.60 trips/rooms	100.00	259.95
Sum of Total Trips				11,301.23
Total Vehicle Miles Traveled				344,037.73

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			

% of Trips - Commercial (by land use)

Casino	5.0	2.5	92.5
Hotel	5.0	2.5	92.5

MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures  
=====

Non-Residential Local-Serving Retail Mitigation  
-----

Percent Reduction in Trips is 2%  
Inputs Selected:  
The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation  
-----

Percent Reduction in Trips is 0.25%  
Inputs Selected:  
The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24  
The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0  
The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Pedestrian/Bicycle Friendliness Mitigation  
-----

Percent Reduction in Trips is 2.18%  
Inputs Selected:  
The Number of Intersections per Square Mile is 100  
The Percent of Streets with Sidewalks on One Side is 50%  
The Percent of Streets with Sidewalks on Both Sides is 10%  
The Percent of Arterials/Collectors with Bike Lanes or where Suitable, Direct Parallel Routes Exist is 30%

Non-Residential Free Transit Passes Mitigation  
-----

Percent Reduction in Trips is 0.06%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The Free Transit Passes checkbox was selected.

Non-Residential Other Transportation Demand Measures Mitigation  
-----

Percent Reduction in Trips is 2.24%  
Note that the above percent is applied ONLY to worker trips.  
Inputs Selected:  
The 'Showers/Changing Facilities Provided' measure was selected  
The 'Guaranteed Ride Home Program Provided' measure was selected  
The 'Information provided on Transportation Alternatives' measure was selected  
The 'Dedicated Employee Transportation Coordinator' measure was selected  
The 'Carpool Matching Programs' measure was selected  
The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The area source mitigation measure option switch changed from off to on.  
The landscape year changed from 2005 to 2007.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
Mitigation measure Residential Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Industrial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Residential Electric Landscape Maintenance Equipment  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The mitigation option switch changed from off to on.  
The operational emission year changed from 2005 to 2008.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.  
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.  
The Res and Non-Res Transit Service Mitigation changed from off to on.  
The Res and Non-Res Ped/Bike Mitigation changed from off to on.  
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

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Project Name: Graton Alt H - Reduced Intensity Wilfred Site Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	0.32	1.30	2.34	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	103.08	173.34	1,682.54	3.06	543.27

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	103.40	174.64	1,684.88	3.07	543.27



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt H-long term.urb  
Project Name: Graton Alt H - Reduced Intensity Wilfred Site Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.04	0.24	0.31	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	21.06	37.01	309.14	0.56	99.15

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	21.10	37.25	309.45	0.56	99.15

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton-Alt H-long term.urb  
Project Name: Graton Alt H - Reduced Intensity Wilfred Site Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE	EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)				
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.09	1.28	1.08	0	0.00
Hearth - No summer emissions					
Landscaping	0.18	0.02	1.26	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.05	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.32	1.30	2.34	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	100.08	169.35	1,643.84	2.99	530.77
Hotel	3.00	3.99	38.70	0.07	12.50
TOTAL EMISSIONS (lbs/day)	103.08	173.34	1,682.54	3.06	543.27

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	293.00	11,552.99
Hotel		2.72 trips/rooms	100.00	272.00
Sum of Total Trips				11,824.99
Total Vehicle Miles Traveled				360,124.90

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The landscape year changed from 2005 to 2020.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2020.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.

Page: 1

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Urbemis 2007 Version 9.2.2

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton Alt A GHG.urb9

Project Name: Graton GHG - Alternatives A, B, C, and F

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton Alt A GHG.urb9

Project Name: Graton GHG - Alternatives A, B, C, and F

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

CO2

2007 TOTALS (tons/year unmitigated) 905.42

2007 TOTALS (tons/year mitigated) 905.42

Percent Reduction 0.00

2008 TOTALS (tons/year unmitigated) 1,758.00

2008 TOTALS (tons/year mitigated) 1,758.00

Percent Reduction 0.00

2009 TOTALS (tons/year unmitigated) 1,448.55

2009 TOTALS (tons/year mitigated) 1,448.55

Percent Reduction 0.00

AREA SOURCE EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
1,121.77

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
84,774.26

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
85,896.03

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\lequinn\Application Data\Urbemis\Version9a\Projects\Graton Alt A GHG.urb9

Project Name: Graton GHG - Alternatives A, B, C, and F

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

CO2

2007 TOTALS (lbs/day unmitigated) 25,083.49

2007 TOTALS (lbs/day mitigated) 25,083.49

2008 TOTALS (lbs/day unmitigated) 13,478.62

2008 TOTALS (lbs/day mitigated) 13,478.62

2009 TOTALS (lbs/day unmitigated) 15,907.17

2009 TOTALS (lbs/day mitigated) 15,907.17

AREA SOURCE EMISSION ESTIMATES

CO2

TOTALS (lbs/day, unmitigated) 6,149.50



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OPERATIONAL (VEHICLE) EMISSION  
ESTIMATES

TOTALS (lbs/day, unmitigated)	<u>CO2</u>
	487,653.14

SUM OF AREA SOURCE AND OPERATIONAL EMISSION  
ESTIMATES

TOTALS (lbs/day, unmitigated)	<u>CO2</u>
	493,802.64

	<u>CO2</u>
Time Slice 6/1/2007-6/29/2007 Active Days: 21	7,396.31
Demolition 06/01/2007- 07/01/2007	7,396.31
Fugitive Dust	0.00
Demo Off Road Diesel	3,550.69
Demo On Road Diesel	3,734.79
Demo Worker Trips	110.83
Time Slice 7/2/2007-8/31/2007 Active Days: 45	11,664.26
Mass Grading 07/01/2007- 08/31/2007	11,664.26
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	11,248.66
Mass Grading On Road Diesel	0.00
Mass Grading Worker Trips	415.60
Time Slice 9/3/2007-9/28/2007 Active Days: 20	11,664.26
Fine Grading 09/01/2007- 10/01/2007	11,664.26
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	11,248.66
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	415.60

**1/17/2008 3:21:44 PM**

Time Slice 10/1/2007-10/1/2007  
Active Days: 1

**25,083.49**

Building 10/01/2007-09/30/2009

13,419.23

Building Off Road Diesel

5,127.20

Building Vendor Trips

4,334.22

Building Worker Trips

3,957.82

Fine Grading 09/01/2007-  
10/01/2007

11,664.26

Fine Grading Dust

0.00

Fine Grading Off Road Diesel

11,248.66

Fine Grading On Road Diesel

0.00

Fine Grading Worker Trips

415.60

Time Slice 10/2/2007-12/31/2007  
Active Days: 65

13,419.23

Building 10/01/2007-09/30/2009

13,419.23

Building Off Road Diesel

5,127.20

Building Vendor Trips

4,334.22

Building Worker Trips

3,957.82

Time Slice 1/1/2008-12/30/2008  
Active Days: 261

13,419.61

Building 10/01/2007-09/30/2009

13,419.61

Building Off Road Diesel

5,127.20

Building Vendor Trips

4,334.41

Building Worker Trips

3,958.00

**1/17/2008 3:21:44 PM**

Time Slice 12/31/2008-12/31/2008  
Active Days: 1

13,478.62

Building 10/01/2007-09/30/2009

13,419.61

Building Off Road Diesel

5,127.20

Building Vendor Trips

4,334.41

Building Worker Trips

3,958.00

Coating 12/31/2008-12/31/2009

59.01

Architectural Coating

0.00

Coating Worker Trips

59.01

Time Slice 1/1/2009-7/31/2009

13,480.44

Active Days: 152

Building 10/01/2007-09/30/2009

13,421.40

Building Off Road Diesel

5,127.20

Building Vendor Trips

4,334.50

Building Worker Trips

3,959.70

Coating 12/31/2008-12/31/2009

59.04

Architectural Coating

0.00

Coating Worker Trips

59.04

**1/17/2008 3:21:44 PM**

Time Slice 8/3/2009-9/30/2009  
Active Days: 43

15,907.17

Asphalt 08/01/2009-12/31/2009

2,426.73

Paving Off-Gas

0.00

Paving Off Road Diesel

1,897.30

Paving On Road Diesel

335.39

Paving Worker Trips

194.04

Building 10/01/2007-09/30/2009

13,421.40

Building Off Road Diesel

5,127.20

Building Vendor Trips

4,334.50

Building Worker Trips

3,959.70

Coating 12/31/2008-12/31/2009

59.04

Architectural Coating

0.00

Coating Worker Trips

59.04

Time Slice 10/1/2009-12/31/2009  
Active Days: 66

2,485.77

Asphalt 08/01/2009-12/31/2009

2,426.73

Paving Off-Gas

0.00

Paving Off Road Diesel

1,897.30

Paving On Road Diesel

335.39

Paving Worker Trips

194.04

Coating 12/31/2008-12/31/2009

59.04

Architectural Coating

0.00

Coating Worker Trips

59.04

Phase Assumptions

Phase: Demolition 6/1/2007 - 7/1/2007 - Type Your Description Here

Building Volume Total (cubic feet): 85162

Building Volume Daily (cubic feet): 16698

On Road Truck Travel (VMT): 927.67

Off-Road Equipment:

- 1 Other Equipment (190 hp) operating at a 0.62 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
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Fine Grading 9/1/2007 - 10/1/2007 - Default Fine Site Grading Description

Total Acres Disturbed: 25.62

Maximum Daily Acreage Disturbed: 6.4

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 2 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day
- 3 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day
- 2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Mass Grading 7/1/2007 - 8/31/2007 - Type Your Description Here

Total Acres Disturbed: 25.62

Maximum Daily Acreage Disturbed: 6.4

Fugitive Dust Level of Detail: Default

Page: 8

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20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 2 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day
- 3 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day
- 2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Paving 8/1/2009 - 12/31/2009 - Default Paving Description

Acres to be Paved: 6.4

Off-Road Equipment:

- 2 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
- 3 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 10/1/2007 - 9/30/2009 - Default Building Construction Description

Off-Road Equipment:

- 3 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day
- 2 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 3 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 3 Rough Terrain Forklifts (93 hp) operating at a 0.6 load factor for 8 hours per day
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 12/31/2008 - 12/31/2009 - Default Architectural Coating Description

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

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

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

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

CO2

Time Slice 6/1/2007-6/29/2007 7,396.31

Active Days: 21

Demolition 06/01/2007-07/01/2007 7,396.31

Fugitive Dust 0.00

Demo Off Road Diesel 3,550.69

Demo On Road Diesel 3,734.79

Demo Worker Trips 110.83

Time Slice 7/2/2007-8/31/2007 11,664.26

Active Days: 45

Mass Grading 07/01/2007-08/31/2007 11,664.26

Mass Grading Dust 0.00

Mass Grading Off Road Diesel 11,248.66

Mass Grading On Road Diesel 0.00

Mass Grading Worker Trips 415.60



**1/17/2008 3:21:45 PM**

Time Slice 9/3/2007-9/28/2007	11,664.26
Active Days: 20	
Fine Grading 09/01/2007 - 10/01/2007	11,664.26
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	11,248.66
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	415.60
Time Slice 10/1/2007-10/1/2007	<b><u>25,083.49</u></b>
Active Days: 1	
Building 10/01/2007-09/30/2009	13,419.23
Building Off Road Diesel	5,127.20
Building Vendor Trips	4,334.22
Building Worker Trips	3,957.82
Fine Grading 09/01/2007-10/01/2007	11,664.26
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	11,248.66
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	415.60
Time Slice 10/2/2007-12/31/2007	13,419.23
Active Days: 65	
Building 10/01/2007-09/30/2009	13,419.23
Building Off Road Diesel	5,127.20
Building Vendor Trips	4,334.22
Building Worker Trips	3,957.82

1/17/2008 3:21:45 PM

Time Slice 1/1/2008-12/30/2008	13,419.61
Active Days: 261	
Building 10/01/2007-09/30/2009	13,419.61
Building Off Road Diesel	5,127.20
Building Vendor Trips	4,334.41
Building Worker Trips	3,958.00
Time Slice 12/31/2008-12/31/2008	<u>13,478.62</u>
Active Days: 1	
Building 10/01/2007-09/30/2009	13,419.61
Building Off Road Diesel	5,127.20
Building Vendor Trips	4,334.41
Building Worker Trips	3,958.00
Coating 12/31/2008-12/31/2009	59.01
Architectural Coating	0.00
Coating Worker Trips	59.01
Time Slice 1/1/2009-7/31/2009	13,480.44
Active Days: 152	
Building 10/01/2007-09/30/2009	13,421.40
Building Off Road Diesel	5,127.20
Building Vendor Trips	4,334.50
Building Worker Trips	3,959.70
Coating 12/31/2008-12/31/2009	59.04
Architectural Coating	0.00
Coating Worker Trips	59.04

**1/17/2008 3:21:45 PM**

Time Slice 8/3/2009-9/30/2009  
Active Days: 43

15,907.17

Asphalt 08/01/2009-12/31/2009

2,426.73

Paving Off-Gas

0.00

Paving Off Road Diesel

1,897.30

Paving On Road Diesel

335.39

Paving Worker Trips

194.04

Building 10/01/2007-09/30/2009

13,421.40

Building Off Road Diesel

5,127.20

Building Vendor Trips

4,334.50

Building Worker Trips

3,959.70

Coating 12/31/2008-12/31/2009

59.04

Architectural Coating

0.00

Coating Worker Trips

59.04

Time Slice 10/1/2009-12/31/2009  
Active Days: 66

2,485.77

Asphalt 08/01/2009-12/31/2009

2,426.73

Paving Off-Gas

0.00

Paving Off Road Diesel

1,897.30

Paving On Road Diesel

335.39

Paving Worker Trips

194.04

Coating 12/31/2008-12/31/2009

59.04

Architectural Coating

0.00

Coating Worker Trips

59.04

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Architectural Coating 12/31/2008 - 12/31/2009 - Default Architectural Coating Description  
For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	CO2
Natural Gas	6,144.00
Hearth - No Summer Emissions	
Landscape	5.50
Consumer Products	
Architectural Coatings	
TOTALS (lbs/day, unmitigated)	6,149.50

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	CO2
Hotel	23,541.06
Casino	464,112.08
<b>TOTALS (lbs/day, unmitigated)</b>	<b>487,653.14</b>

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2020 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
Hotel		2.72	rooms	300.00	816.00	24,850.92
Casino		39.43	1000 sq ft	408.00	16,087.44	489,935.95
					16,903.44	514,786.87

  

Vehicle Fleet Mix	
Vehicle Type	Percent Type
Light Auto	54.0
Light Truck < 3750 lbs	12.6
Light Truck 3751-5750 lbs	19.9
Med Truck 5751-8500 lbs	6.6

  

Vehicle Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	100.0	0.0
Light Truck < 3750 lbs	0.0	98.4	1.6
Light Truck 3751-5750 lbs	0.0	100.0	0.0
Med Truck 5751-8500 lbs	0.0	100.0	0.0

Vehicle Type	Vehicle Fleet Mix			Catalyst	Diesel
	Percent Type	Non-Catalyst	Diesel		
Lite-Heavy Truck 8501-10,000 lbs	0.9	0.0	77.8	22.2	
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0	
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0	
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0	
Other Bus	0.1	0.0	0.0	100.0	
Urban Bus	0.1	0.0	0.0	100.0	
Motorcycle	3.2	40.6	59.4	0.0	
School Bus	0.1	0.0	0.0	100.0	
Motor Home	0.6	0.0	83.3	16.7	

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
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)						
Hotel				5.0	2.5	92.5
Casino				5.0	2.5	92.5

Operational Changes to Defaults

Home-based work urban trip length changed from 10.8 miles to 11.8 miles

Home-based shop urban trip length changed from 7.3 miles to 35.5 miles

Home-based other urban trip length changed from 7.5 miles to 35.5 miles

Commercial-based commute urban trip length changed from 9.5 miles to 11.8 miles

Commercial-based non-work urban trip length changed from 7.35 miles to 35.5 miles

Commercial-based customer urban trip length changed from 7.35 miles to 35.5 miles

Urbemis 2007 Version 9.2.2

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\lequinn\Application Data\Urbemis\Version9a\Projects\Graton GHG\Graton Alts. D and H GHG.urb9

Project Name: Graton GHG - Alternatives D and H

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007



Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton GHG\Graton Alts. D and H GHG.urb9

Project Name: Graton GHG - Alternatives D and H

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

CO2

2007 TOTALS (tons/year unmitigated) 711.99

2007 TOTALS (tons/year mitigated) 711.99

Percent Reduction 0.00

2008 TOTALS (tons/year unmitigated) 1,119.92

2008 TOTALS (tons/year mitigated) 1,119.92

Percent Reduction 0.00

2009 TOTALS (tons/year unmitigated) 914.48

2009 TOTALS (tons/year mitigated) 914.48

Percent Reduction 0.00

AREA SOURCE EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
603.47

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
59,304.78

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
59,908.25

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton GHG\Graton Alts. D and H GHG.urb9

Project Name: Graton GHG - Alternatives D and H

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

CO2

2007 TOTALS (lbs/day unmitigated) 19,222.03

2007 TOTALS (lbs/day mitigated) 19,222.03

2008 TOTALS (lbs/day unmitigated) 8,585.15

2008 TOTALS (lbs/day mitigated) 8,585.15

2009 TOTALS (lbs/day unmitigated) 9,982.92

2009 TOTALS (lbs/day mitigated) 9,982.92

AREA SOURCE EMISSION ESTIMATES

CO2

TOTALS (lbs/day, unmitigated) 3,309.50

Page: 2

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OPERATIONAL (VEHICLE) EMISSION  
ESTIMATES

CO2  
341,143.19

TOTALS (lbs/day, unmitigated)

SUM OF AREA SOURCE AND OPERATIONAL EMISSION  
ESTIMATES

CO2  
344,452.69

TOTALS (lbs/day, unmitigated)

	<u>CO2</u>
Time Slice 6/1/2007-6/29/2007 Active Days: 21	7,396.31
Demolition 06/01/2007- 07/01/2007	7,396.31
Fugitive Dust	0.00
Demo Off Road Diesel	3,550.69
Demo On Road Diesel	3,734.79
Demo Worker Trips	110.83
Time Slice 7/2/2007-8/31/2007 Active Days: 45	10,673.38
Mass Grading 07/01/2007- 08/31/2007	10,673.38
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	10,313.20
Mass Grading On Road Diesel	0.00
Mass Grading Worker Trips	360.18
Time Slice 9/3/2007-9/28/2007 Active Days: 20	10,673.38
Fine Grading 09/01/2007- 10/01/2007	10,673.38
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	10,313.20
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	360.18

**1/17/2008 3:35:34 PM**

Time Slice 10/1/2007-10/1/2007  
Active Days: 1

**19,222.03**

Building 10/01/2007-09/30/2009

8,548.65

Building Off Road Diesel

3,451.57

Building Vendor Trips

2,664.22

Building Worker Trips

2,432.85

Fine Grading 09/01/2007-  
10/01/2007

10,673.38

Fine Grading Dust

0.00

Fine Grading Off Road Diesel

10,313.20

Fine Grading On Road Diesel

0.00

Fine Grading Worker Trips

360.18

Time Slice 10/2/2007-12/31/2007  
Active Days: 65

8,548.65

Building 10/01/2007-09/30/2009

8,548.65

Building Off Road Diesel

3,451.57

Building Vendor Trips

2,664.22

Building Worker Trips

2,432.85

Time Slice 1/1/2008-12/30/2008  
Active Days: 261

8,548.88

Building 10/01/2007-09/30/2009

8,548.88

Building Off Road Diesel

3,451.57

Building Vendor Trips

2,664.34

Building Worker Trips

2,432.96

1/17/2008 3:35:34 PM

Time Slice 12/31/2008-12/31/2008  
Active Days: 1

Building 10/01/2007-09/30/2009

Building Off Road Diesel

Building Vendor Trips

Building Worker Trips

Coating 12/31/2008-12/31/2009

Architectural Coating

Coating Worker Trips

Time Slice 1/1/2009-7/31/2009  
Active Days: 152

Building 10/01/2007-09/30/2009

Building Off Road Diesel

Building Vendor Trips

Building Worker Trips

Coating 12/31/2008-12/31/2009

Architectural Coating

Coating Worker Trips

8,585.15

8,548.88

3,451.57

2,664.34

2,432.96

36.27

0.00

36.27

8,586.27

8,549.98

3,451.57

2,664.40

2,434.01

36.29

0.00

36.29

**1/17/2008 3:35:34 PM**

Time Slice 8/3/2009-9/30/2009  
Active Days: 43

9,982.92

Asphalt 08/01/2009-12/31/2009

1,396.65

Paving Off-Gas

0.00

Paving Off Road Diesel

1,079.29

Paving On Road Diesel

206.48

Paving Worker Trips

110.88

Building 10/01/2007-09/30/2009

8,549.98

Building Off Road Diesel

3,451.57

Building Vendor Trips

2,664.40

Building Worker Trips

2,434.01

Coating 12/31/2008-12/31/2009

36.29

Architectural Coating

0.00

Coating Worker Trips

36.29

Time Slice 10/1/2009-12/31/2009

1,432.93

Active Days: 66

Asphalt 08/01/2009-12/31/2009

1,396.65

Paving Off-Gas

0.00

Paving Off Road Diesel

1,079.29

Paving On Road Diesel

206.48

Paving Worker Trips

110.88

Coating 12/31/2008-12/31/2009

36.29

Architectural Coating

0.00

Coating Worker Trips

36.29



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Phase Assumptions

Phase: Demolition 6/1/2007 - 7/1/2007 - Type Your Description Here

Building Volume Total (cubic feet): 85162

Building Volume Daily (cubic feet): 16698

On Road Truck Travel (VMT): 927.67

Off-Road Equipment:

1 Other Equipment (190 hp) operating at a 0.62 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

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

Phase: Fine Grading 9/1/2007 - 10/1/2007 - Default Fine Site Grading Description

Total Acres Disturbed: 15.75

Maximum Daily Acreage Disturbed: 3.94

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

2 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day

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

1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day

2 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

2 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day

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

Phase: Mass Grading 7/1/2007 - 8/31/2007 - Type Your Description Here

Total Acres Disturbed: 15.75

Maximum Daily Acreage Disturbed: 3.94

Fugitive Dust Level of Detail: Default

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20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 2 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day
- 2 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day
- 2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Paving 8/1/2009 - 12/31/2009 - Default Paving Description

Acres to be Paved: 3.94

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 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 7 hours per day

Phase: Building Construction 10/1/2007 - 9/30/2009 - Default Building Construction Description

Off-Road Equipment:

- 2 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day
- 1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Rough Terrain Forklifts (93 hp) operating at a 0.6 load factor for 8 hours per day
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 12/31/2008 - 12/31/2009 - Default Architectural Coating Description

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

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

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

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

CO2

Time Slice 6/1/2007-6/29/2007 7,396.31

Active Days: 21

Demolition 06/01/2007- 7,396.31

07/01/2007

Fugitive Dust 0.00

Demo Off Road Diesel 3,550.69

Demo On Road Diesel 3,734.79

Demo Worker Trips 110.83

Time Slice 7/2/2007-8/31/2007 10,673.38

Active Days: 45

Mass Grading 07/01/2007- 10,673.38

08/31/2007

Mass Grading Dust 0.00

Mass Grading Off Road Diesel 10,313.20

Mass Grading On Road Diesel 0.00

Mass Grading Worker Trips 360.18

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Time Slice 9/3/2007-9/28/2007  
Active Days: 20

10,673.38

Fine Grading 09/01/2007-  
10/01/2007

10,673.38

Fine Grading Dust

0.00

Fine Grading Off Road Diesel

10,313.20

Fine Grading On Road Diesel

0.00

Fine Grading Worker Trips

360.18

Time Slice 10/1/2007-10/1/2007

**19,222.03**

Active Days: 1

Building 10/01/2007-09/30/2009

8,548.65

Building Off Road Diesel

3,451.57

Building Vendor Trips

2,664.22

Building Worker Trips

2,432.85

Fine Grading 09/01/2007-  
10/01/2007

10,673.38

Fine Grading Dust

0.00

Fine Grading Off Road Diesel

10,313.20

Fine Grading On Road Diesel

0.00

Fine Grading Worker Trips

360.18

Time Slice 10/2/2007-12/31/2007  
Active Days: 65

8,548.65

Building 10/01/2007-09/30/2009

8,548.65

Building Off Road Diesel

3,451.57

Building Vendor Trips

2,664.22

Building Worker Trips

2,432.85

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Time Slice 1/1/2008-12/30/2008	8,548.88
Active Days: 261	
Building 10/01/2007-09/30/2009	8,548.88
Building Off Road Diesel	3,451.57
Building Vendor Trips	2,664.34
Building Worker Trips	2,432.96
Time Slice 12/31/2008-12/31/2008	8,585.15
Active Days: 1	
Building 10/01/2007-09/30/2009	8,548.88
Building Off Road Diesel	3,451.57
Building Vendor Trips	2,664.34
Building Worker Trips	2,432.96
Coating 12/31/2008-12/31/2009	36.27
Architectural Coating	0.00
Coating Worker Trips	36.27
Time Slice 1/1/2009-7/31/2009	8,586.27
Active Days: 152	
Building 10/01/2007-09/30/2009	8,549.98
Building Off Road Diesel	3,451.57
Building Vendor Trips	2,664.40
Building Worker Trips	2,434.01
Coating 12/31/2008-12/31/2009	36.29
Architectural Coating	0.00
Coating Worker Trips	36.29

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Time Slice 8/3/2009-9/30/2009  
Active Days: 43

Asphalt 08/01/2009-12/31/2009

Paving Off-Gas 0.00  
Paving Off Road Diesel 1,079.29  
Paving On Road Diesel 206.48  
Paving Worker Trips 110.88

Building 10/01/2007-09/30/2009

Building Off Road Diesel 8,549.98  
Building Vendor Trips 3,451.57  
Building Worker Trips 2,664.40

Coating 12/31/2008-12/31/2009

Coating Architectural Coating 36.29  
Coating Worker Trips 2,434.01

Time Slice 10/1/2009-12/31/2009

Active Days: 66

Asphalt 08/01/2009-12/31/2009

Paving Off-Gas 0.00  
Paving Off Road Diesel 1,079.29  
Paving On Road Diesel 206.48  
Paving Worker Trips 110.88

Coating 12/31/2008-12/31/2009

Coating Architectural Coating 36.29  
Coating Worker Trips 0.00

9,982.92

1,396.65

0.00

1,079.29

206.48

110.88

8,549.98

3,451.57

2,664.40

2,434.01

36.29

0.00

36.29

1,432.93

1,396.65

0.00

1,079.29

206.48

110.88

36.29

0.00

36.29

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Architectural Coating 12/31/2008 - 12/31/2009 - Default Architectural Coating Description For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>CO2</u>
Natural Gas	3,304.00
Hearth - No Summer Emissions	
Landscape	5.50
Consumer Products	
Architectural Coatings	
TOTALS (lbs/day, unmitigated)	3,309.50

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	CO2
Hotel	7,847.02
Casino	333,296.17
<b>TOTALS (lbs/day, unmitigated)</b>	<b>341,143.19</b>

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2020 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
Hotel	2.72	rooms	100.00	272.00	8,283.64	
Casino	39.43	1000 sq ft	293.00	11,552.99	351,841.26	
				11,824.99	360,124.90	

  

<u>Vehicle Fleet Mix</u>		
Vehicle Type	Percent Type	Diesel
Light Auto	54.0	0.0
Light Truck < 3750 lbs	12.6	1.6
Light Truck 3751-5750 lbs	19.9	0.0
Med Truck 5751-8500 lbs	6.6	0.0



Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Lite-Heavy Truck 8501-10,000 lbs	0.9	0.0	77.8	22.2
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.2	40.6	59.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial	
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1		
<b>% of Trips - Commercial (by land use)</b>					
Hotel				5.0	2.5
Casino				5.0	2.5

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Operational Changes to Defaults

Home-based work urban trip length changed from 10.8 miles to 11.8 miles

Home-based shop urban trip length changed from 7.3 miles to 35.5 miles

Home-based other urban trip length changed from 7.5 miles to 35.5 miles

Commercial-based commute urban trip length changed from 9.5 miles to 11.8 miles

Commercial-based non-work urban trip length changed from 7.35 miles to 35.5 miles

Commercial-based customer urban trip length changed from 7.35 miles to 35.5 miles

Urbemis 2007 Version 9.2.2

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\lequinn\Application Data\Urbemis\Version9a\Projects\Graton GHG\Graton Alt. E GHG.urb9

Project Name: Graton GHG - Alternatives E

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton GHG\Graton Alt. E GHG.urb9

Project Name: Graton GHG - Alternatives E

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

CO2

2007 TOTALS (tons/year unmitigated) 1,326.04

2007 TOTALS (tons/year mitigated) 1,326.04

Percent Reduction 0.00

2008 TOTALS (tons/year unmitigated) 4,332.09

2008 TOTALS (tons/year mitigated) 4,332.09

Percent Reduction 0.00

2009 TOTALS (tons/year unmitigated) 3,283.33

2009 TOTALS (tons/year mitigated) 3,283.33

Percent Reduction 0.00

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AREA SOURCE EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
388.57

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
25,133.17

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
25,521.74

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton GHG\Graton Alt. E GHG.urb9

Project Name: Graton GHG - Alternatives E

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

CO2

2007 TOTALS (lbs/day unmitigated) 38,439.53

2007 TOTALS (lbs/day mitigated) 38,439.53

2008 TOTALS (lbs/day unmitigated) 33,122.05

2008 TOTALS (lbs/day mitigated) 33,122.05

2009 TOTALS (lbs/day unmitigated) 34,078.35

2009 TOTALS (lbs/day mitigated) 34,078.35

AREA SOURCE EMISSION ESTIMATES

CO2

TOTALS (lbs/day, unmitigated) 2,131.94

Page: 2

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OPERATIONAL (VEHICLE) EMISSION  
ESTIMATES

CO2  
144,550.95

TOTALS (lbs/day, unmitigated)

SUM OF AREA SOURCE AND OPERATIONAL EMISSION  
ESTIMATES

CO2  
146,682.89

TOTALS (lbs/day, unmitigated)

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CO2

Time Slice 6/1/2007-6/29/2007 Active Days: 21	7,396.31
Demolition 06/01/2007- 07/01/2007	7,396.31
Fugitive Dust	0.00
Demo Off Road Diesel	3,550.69
Demo On Road Diesel	3,734.79
Demo Worker Trips	110.83
Time Slice 7/2/2007-8/31/2007 Active Days: 45	4,476.44
Mass Grading 07/01/2007- 08/31/2007	4,476.44
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	4,310.20
Mass Grading On Road Diesel	0.00
Mass Grading Worker Trips	166.24
Time Slice 9/3/2007-9/28/2007 Active Days: 20	5,370.72
Fine Grading 09/01/2007- 10/01/2007	5,370.72
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	5,204.48
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	166.24



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Time Slice 10/1/2007-10/1/2007	38,439.53
Active Days: 1	
Building 10/01/2007-09/30/2009	33,068.81
Building Off Road Diesel	1,517.50
Building Vendor Trips	27,118.27
Building Worker Trips	4,433.04
Fine Grading 09/01/2007-10/01/2007	5,370.72
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	5,204.48
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	166.24
Time Slice 10/2/2007-12/31/2007	33,068.81
Active Days: 65	
Building 10/01/2007-09/30/2009	33,068.81
Building Off Road Diesel	1,517.50
Building Vendor Trips	27,118.27
Building Worker Trips	4,433.04
Time Slice 1/1/2008-12/30/2008	33,069.17
Active Days: 261	
Building 10/01/2007-09/30/2009	33,069.17
Building Off Road Diesel	1,517.50
Building Vendor Trips	27,118.43
Building Worker Trips	4,433.24

**1/17/2008 3:51:22 PM**

Time Slice 12/31/2008-12/31/2008  
Active Days: 1

Building 10/01/2007-09/30/2009	33,122.05
Building Off Road Diesel	33,069.17
Building Vendor Trips	1,517.50
Building Worker Trips	27,118.43
Coating 12/31/2008-12/31/2009	4,433.24
Architectural Coating	52.88
Coating Worker Trips	0.00
	52.88

Time Slice 1/1/2009-7/31/2009  
Active Days: 152

Building 10/01/2007-09/30/2009	33,123.70
Building Off Road Diesel	33,070.80
Building Vendor Trips	1,517.50
Building Worker Trips	27,118.15
Coating 12/31/2008-12/31/2009	4,435.15
Architectural Coating	52.90
Coating Worker Trips	0.00
	52.90

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Time Slice 8/3/2009-9/30/2009  
Active Days: 43

34,078.35

Asphalt 08/01/2009-12/31/2009

954.65

Paving Off-Gas

0.00

Paving Off Road Diesel

598.40

Paving On Road Diesel

300.81

Paving Worker Trips

55.44

Building 10/01/2007-09/30/2009

33,070.80

Building Off Road Diesel

1,517.50

Building Vendor Trips

27,118.15

Building Worker Trips

4,435.15

Coating 12/31/2008-12/31/2009

52.90

Architectural Coating

0.00

Coating Worker Trips

52.90

Time Slice 10/1/2009-12/31/2009  
Active Days: 66

1,007.55

Asphalt 08/01/2009-12/31/2009

954.65

Paving Off-Gas

0.00

Paving Off Road Diesel

598.40

Paving On Road Diesel

300.81

Paving Worker Trips

55.44

Coating 12/31/2008-12/31/2009

52.90

Architectural Coating

0.00

Coating Worker Trips

52.90

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Phase Assumptions

Phase: Demolition 6/1/2007 - 7/1/2007 - Type Your Description Here

Building Volume Total (cubic feet): 85162

Building Volume Daily (cubic feet): 16698

On Road Truck Travel (VMT): 927.67

Off-Road Equipment:

1 Other Equipment (190 hp) operating at a 0.62 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

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

Phase: Fine Grading 9/1/2007 - 10/1/2007 - Default Fine Site Grading Description

Total Acres Disturbed: 22.96

Maximum Daily Acreage Disturbed: 5.74

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day

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

1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day

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

Phase: Mass Grading 7/1/2007 - 8/31/2007 - Type Your Description Here

Total Acres Disturbed: 22.96

Maximum Daily Acreage Disturbed: 5.74

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day
- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Paving 8/1/2009 - 12/31/2009 - Default Paving Description

Acres to be Paved: 5.74

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 10/1/2007 - 9/30/2009 - Default Building Construction Description

Off-Road Equipment:

- 1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

Phase: Architectural Coating 12/31/2008 - 12/31/2009 - Default Architectural Coating Description

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

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

1/17/2008 3:51:23 PM

CO2

Time Slice 6/1/2007-6/29/2007  
Active Days: 21 7,396.31

Demolition 06/01/2007-  
07/01/2007 7,396.31

Fugitive Dust 0.00

Demo Off Road Diesel 3,550.69

Demo On Road Diesel 3,734.79

Demo Worker Trips 110.83

Time Slice 7/2/2007-8/31/2007  
Active Days: 45 4,476.44

Mass Grading 07/01/2007-  
08/31/2007 4,476.44

Mass Grading Dust 0.00

Mass Grading Off Road Diesel 4,310.20

Mass Grading On Road Diesel 0.00

Mass Grading Worker Trips 166.24

Time Slice 9/3/2007-9/28/2007  
Active Days: 20 5,370.72

Fine Grading 09/01/2007-  
10/01/2007 5,370.72

Fine Grading Dust 0.00

Fine Grading Off Road Diesel 5,204.48

Fine Grading On Road Diesel 0.00

Fine Grading Worker Trips 166.24

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Time Slice 10/1/2007-10/1/2007  
Active Days: 1

**38,439.53**

Building 10/01/2007-09/30/2009

33,068.81

Building Off Road Diesel

1,517.50

Building Vendor Trips

27,118.27

Building Worker Trips

4,433.04

Fine Grading 09/01/2007-  
10/01/2007

5,370.72

Fine Grading Dust

0.00

Fine Grading Off Road Diesel

5,204.48

Fine Grading On Road Diesel

0.00

Fine Grading Worker Trips

166.24

Time Slice 10/2/2007-12/31/2007  
Active Days: 65

33,068.81

Building 10/01/2007-09/30/2009

33,068.81

Building Off Road Diesel

1,517.50

Building Vendor Trips

27,118.27

Building Worker Trips

4,433.04

Time Slice 1/1/2008-12/30/2008  
Active Days: 261

33,069.17

Building 10/01/2007-09/30/2009

33,069.17

Building Off Road Diesel

1,517.50

Building Vendor Trips

27,118.43

Building Worker Trips

4,433.24

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Time Slice 12/31/2008-12/31/2008  
Active Days: 1

33,122.05

Building 10/01/2007-09/30/2009

33,069.17

Building Off Road Diesel

1,517.50

Building Vendor Trips

27,118.43

Building Worker Trips

4,433.24

Coating 12/31/2008-12/31/2009

52.88

Architectural Coating

0.00

Coating Worker Trips

52.88

Time Slice 1/1/2009-7/31/2009

33,123.70

Active Days: 152

Building 10/01/2007-09/30/2009

33,070.80

Building Off Road Diesel

1,517.50

Building Vendor Trips

27,118.15

Building Worker Trips

4,435.15

Coating 12/31/2008-12/31/2009

52.90

Architectural Coating

0.00

Coating Worker Trips

52.90



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Time Slice 8/3/2009-9/30/2009  
Active Days: 43

34,078.35

Asphalt 08/01/2009-12/31/2009

954.65

Paving Off-Gas

0.00

Paving Off Road Diesel

598.40

Paving On Road Diesel

300.81

Paving Worker Trips

55.44

Building 10/01/2007-09/30/2009

33,070.80

Building Off Road Diesel

1,517.50

Building Vendor Trips

27,118.15

Building Worker Trips

4,435.15

Coating 12/31/2008-12/31/2009

52.90

Architectural Coating

0.00

Coating Worker Trips

52.90

Time Slice 10/1/2009-12/31/2009

1,007.55

Active Days: 66

Asphalt 08/01/2009-12/31/2009

954.65

Paving Off-Gas

0.00

Paving Off Road Diesel

598.40

Paving On Road Diesel

300.81

Paving Worker Trips

55.44

Coating 12/31/2008-12/31/2009

52.90

Architectural Coating

0.00

Coating Worker Trips

52.90

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 9/1/2007 - 10/1/2007 - Default Fine Site Grading Description  
For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

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

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

The following mitigation measures apply to Phase: Architectural Coating 12/31/2008 - 12/31/2009 - Default Architectural Coating Description  
For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source CO2

Natural Gas 2,126.44

Hearth - No Summer Emissions

Landscape 5.50

Consumer Products

Architectural Coatings

TOTALS (lbs/day, unmitigated) 2,131.94

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source CO2

Regnl shop. center 91,101.85

General light industry 53,449.10

TOTALS (lbs/day, unmitigated) 144,550.95

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2020 Temperature (F): 85 Season: Summer

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Regnl shp. center		42.94	1000 sq ft	100.00	4,294.00	96,031.45
General light industry		6.97	1000 sq ft	400.00	2,788.00	56,045.77
					7,082.00	152,077.22

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.0	0.0	100.0	0.0
Light Truck < 3750 lbs	12.6	0.0	98.4	1.6
Light Truck 3751-5750 lbs	19.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	6.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.9	0.0	77.8	22.2
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.2	40.6	59.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
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)

Regnl shop center	2.0	1.0	97.0
General light industry	50.0	25.0	25.0

Operational Changes to Defaults

Home-based work urban trip length changed from 10.8 miles to 11.8 miles

Home-based shop urban trip length changed from 7.3 miles to 35.5 miles

Home-based other urban trip length changed from 7.5 miles to 35.5 miles

Commercial-based commute urban trip length changed from 9.5 miles to 11.8 miles

Commercial-based non-work urban trip length changed from 7.35 miles to 35.5 miles

Commercial-based customer urban trip length changed from 7.35 miles to 35.5 miles

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton GHG\Graton Alt. G GHG.urb9

Project Name: Graton GHG - Alternatives G

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

CO2

2007 TOTALS (tons/year unmitigated) 471.04

2007 TOTALS (tons/year mitigated) 471.04

Percent Reduction 0.00

2008 TOTALS (tons/year unmitigated) 937.97

2008 TOTALS (tons/year mitigated) 937.97

Percent Reduction 0.00

2009 TOTALS (tons/year unmitigated) 746.37

2009 TOTALS (tons/year mitigated) 746.37

Percent Reduction 0.00

AREA SOURCE EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
1,393.52

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
13,126.14

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

TOTALS (tons/year, unmitigated) CO2  
14,519.66

Summary Report for Summer Emissions (Pounds/Day)

File Name: C:\Documents and Settings\lequinn\Application Data\Urbemis\Version9a\Projects\Graton GHG\Graton Alt. G GHG.urb9

Project Name: Graton GHG - Alternatives G

Project Location: Bay Area Air District

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

CO2

2007 TOTALS (lbs/day unmitigated) 12,530.30

2007 TOTALS (lbs/day mitigated) 12,530.30

2008 TOTALS (lbs/day unmitigated) 7,230.45

2008 TOTALS (lbs/day mitigated) 7,230.45

2009 TOTALS (lbs/day unmitigated) 7,945.67

2009 TOTALS (lbs/day mitigated) 7,945.67

AREA SOURCE EMISSION ESTIMATES

CO2

TOTALS (lbs/day, unmitigated) 7,201.27



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OPERATIONAL (VEHICLE) EMISSION  
ESTIMATES

	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	75,372.71

SUM OF AREA SOURCE AND OPERATIONAL EMISSION  
ESTIMATES

	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	82,573.98

	<u>CO2</u>
Time Slice 6/1/2007-6/29/2007 Active Days: 21	7,396.31
Demolition 06/01/2007- 07/01/2007	7,396.31
Fugitive Dust	0.00
Demo Off Road Diesel	3,550.69
Demo On Road Diesel	3,734.79
Demo Worker Trips	110.83
Time Slice 7/2/2007-8/31/2007 Active Days: 45	4,476.44
Mass Grading 07/01/2007- 08/31/2007	4,476.44
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	4,310.20
Mass Grading On Road Diesel	0.00
Mass Grading Worker Trips	166.24
Time Slice 9/3/2007-9/28/2007 Active Days: 20	5,370.72
Fine Grading 09/01/2007- 10/01/2007	5,370.72
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	5,204.48
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	166.24

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Time Slice 10/1/2007-10/1/2007  
Active Days: 1

Building 10/01/2007-09/30/2009

12,530.30

7,159.57

Building Off Road Diesel

1,517.50

Building Vendor Trips

926.21

Building Worker Trips

4,715.87

Fine Grading 09/01/2007-  
10/01/2007

5,370.72

Fine Grading Dust

0.00

Fine Grading Off Road Diesel

5,204.48

Fine Grading On Road Diesel

0.00

Fine Grading Worker Trips

166.24

Time Slice 10/2/2007-12/31/2007  
Active Days: 65

7,159.57

Building 10/01/2007-09/30/2009

7,159.57

Building Off Road Diesel

1,517.50

Building Vendor Trips

926.21

Building Worker Trips

4,715.87

Time Slice 1/1/2008-12/30/2008  
Active Days: 261

7,159.78

Building 10/01/2007-09/30/2009

7,159.78

Building Off Road Diesel

1,517.50

Building Vendor Trips

926.20

Building Worker Trips

4,716.09

**2/8/2008 3:06:13 PM**

Time Slice 12/31/2008-12/31/2008  
Active Days: 1

Building 10/01/2007-09/30/2009	7,230.45
Building Off Road Diesel	7,159.78
Building Vendor Trips	1,517.50
Building Worker Trips	926.20
Coating 12/31/2008-12/31/2009	4,716.09
Architectural Coating	70.67
Coating Worker Trips	0.00

Time Slice 1/1/2009-7/31/2009  
Active Days: 152

Building 10/01/2007-09/30/2009	7,232.48
Building Off Road Diesel	7,161.78
Building Vendor Trips	1,517.50
Building Worker Trips	926.17
Coating 12/31/2008-12/31/2009	4,718.11
Architectural Coating	70.70
Coating Worker Trips	0.00

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Time Slice 8/3/2009-9/30/2009  
Active Days: 43

7,945.67

Asphalt 08/01/2009-12/31/2009

713.19

Paving Off-Gas

0.00

Paving Off Road Diesel

598.40

Paving On Road Diesel

59.34

Paving Worker Trips

55.44

Building 10/01/2007-09/30/2009

7,161.78

Building Off Road Diesel

1,517.50

Building Vendor Trips

926.17

Building Worker Trips

4,718.11

Coating 12/31/2008-12/31/2009

70.70

Architectural Coating

0.00

Coating Worker Trips

70.70

Time Slice 10/1/2009-12/31/2009

783.89

Active Days: 66

Asphalt 08/01/2009-12/31/2009

713.19

Paving Off-Gas

0.00

Paving Off Road Diesel

598.40

Paving On Road Diesel

59.34

Paving Worker Trips

55.44

Coating 12/31/2008-12/31/2009

70.70

Architectural Coating

0.00

Coating Worker Trips

70.70

Phase Assumptions

Phase: Demolition 6/1/2007 - 7/1/2007 - Type Your Description Here

Building Volume Total (cubic feet): 85162

Building Volume Daily (cubic feet): 16698

On Road Truck Travel (VMT): 927.67

Off-Road Equipment:

1 Other Equipment (190 hp) operating at a 0.62 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

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

Phase: Fine Grading 9/1/2007 - 10/1/2007 - Default Fine Site Grading Description

Total Acres Disturbed: 32.17

Maximum Daily Acreage Disturbed: 8.04

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day

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

1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day

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

Phase: Mass Grading 7/1/2007 - 8/31/2007 - Type Your Description Here

Total Acres Disturbed: 32.17

Maximum Daily Acreage Disturbed: 8.04

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day
- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Paving 8/1/2009 - 12/31/2009 - Default Paving Description

Acres to be Paved: 8.04

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 10/1/2007 - 9/30/2009 - Default Building Construction Description

Off-Road Equipment:

- 1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

Phase: Architectural Coating 12/31/2008 - 12/31/2009 - Default Architectural Coating Description

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

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

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

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

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

CO2

Time Slice 6/1/2007-6/29/2007 Active Days: 21	7,396.31
Demolition 06/01/2007- 07/01/2007	7,396.31
Fugitive Dust	0.00
Demo Off Road Diesel	3,550.69
Demo On Road Diesel	3,734.79
Demo Worker Trips	110.83
Time Slice 7/2/2007-8/31/2007 Active Days: 45	4,476.44
Mass Grading 07/01/2007- 08/31/2007	4,476.44
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	4,310.20
Mass Grading On Road Diesel	0.00
Mass Grading Worker Trips	166.24
Time Slice 9/3/2007-9/28/2007 Active Days: 20	5,370.72
Fine Grading 09/01/2007- 10/01/2007	5,370.72
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	5,204.48
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	166.24



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Time Slice 10/1/2007-10/1/2007  
Active Days: 1

12,530.30

Building 10/01/2007-09/30/2009

7,159.57

Building Off Road Diesel

1,517.50

Building Vendor Trips

926.21

Building Worker Trips

4,715.87

Fine Grading 09/01/2007-  
10/01/2007

5,370.72

Fine Grading Dust

0.00

Fine Grading Off Road Diesel

5,204.48

Fine Grading On Road Diesel

0.00

Fine Grading Worker Trips

166.24

Time Slice 10/2/2007-12/31/2007  
Active Days: 65

7,159.57

Building 10/01/2007-09/30/2009

7,159.57

Building Off Road Diesel

1,517.50

Building Vendor Trips

926.21

Building Worker Trips

4,715.87

Time Slice 1/1/2008-12/30/2008  
Active Days: 261

7,159.78

Building 10/01/2007-09/30/2009

7,159.78

Building Off Road Diesel

1,517.50

Building Vendor Trips

926.20

Building Worker Trips

4,716.09

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Time Slice 12/31/2008-12/31/2008	7,230.45
Active Days: 1	
Building 10/01/2007-09/30/2009	7,159.78
Building Off Road Diesel	1,517.50
Building Vendor Trips	926.20
Building Worker Trips	4,716.09
Coating 12/31/2008-12/31/2009	70.67
Architectural Coating	0.00
Coating Worker Trips	70.67
Time Slice 1/1/2009-7/31/2009	7,232.48
Active Days: 152	
Building 10/01/2007-09/30/2009	7,161.78
Building Off Road Diesel	1,517.50
Building Vendor Trips	926.17
Building Worker Trips	4,718.11
Coating 12/31/2008-12/31/2009	70.70
Architectural Coating	0.00
Coating Worker Trips	70.70

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Time Slice 8/3/2009-9/30/2009  
Active Days: 43

7,945.67

Asphalt 08/01/2009-12/31/2009

713.19

Paving Off-Gas

0.00

Paving Off Road Diesel

598.40

Paving On Road Diesel

59.34

Paving Worker Trips

55.44

Building 10/01/2007-09/30/2009

7,161.78

Building Off Road Diesel

1,517.50

Building Vendor Trips

926.17

Building Worker Trips

4,718.11

Coating 12/31/2008-12/31/2009

70.70

Architectural Coating

0.00

Coating Worker Trips

70.70

Time Slice 10/1/2009-12/31/2009

783.89

Active Days: 66

Asphalt 08/01/2009-12/31/2009

713.19

Paving Off-Gas

0.00

Paving Off Road Diesel

598.40

Paving On Road Diesel

59.34

Paving Worker Trips

55.44

Coating 12/31/2008-12/31/2009

70.70

Architectural Coating

0.00

Coating Worker Trips

70.70

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 9/1/2007 - 10/1/2007 - Default Fine Site Grading Description  
For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

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

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

The following mitigation measures apply to Phase: Architectural Coating 12/31/2008 - 12/31/2009 - Default Architectural Coating Description  
For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>CO2</u>
Natural Gas	7,195.77
Hearth - No Summer Emissions	
Landscape	5.50
Consumer Products	
Architectural Coatings	
TOTALS (lbs/day, unmitigated)	7,201.27

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>CO2</u>
Apartments low rise	6,873.58
Regnl shop center	68,499.13
TOTALS (lbs/day, unmitigated)	75,372.71

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2020 Temperature (F): 85 Season: Summer

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Apartments low rise	9.44	6.90	dwelling units	151.00	1,041.90	7,028.65
Regnl shop. center		42.94	1000 sq ft	495.00	21,255.30	69,703.27
					22,297.20	76,731.92

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.0	0.0	100.0	0.0
Light Truck < 3750 lbs	12.6	0.0	98.4	1.6
Light Truck 3751-5750 lbs	19.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	6.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.9	0.0	77.8	22.2
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.2	40.6	59.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	4.6	6.1	11.8	5.0	5.0
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)

Regnl shop. center

2.0

1.0

97.0

Operational Changes to Defaults

Home-based work urban trip length changed from 10.8 miles to 11.8 miles

Home-based shop urban trip length changed from 7.3 miles to 4.6 miles

Home-based other urban trip length changed from 7.5 miles to 6.1 miles

Commercial-based commute urban trip length changed from 9.5 miles to 11.8 miles

Commercial-based non-work urban trip length changed from 7.35 miles to 5 miles

Commercial-based customer urban trip length changed from 7.35 miles to 5 miles

## *Final Conformity Determination*



**FINAL GENERAL CONFORMITY DETERMINATION  
FOR THE GRATON CASINO/HOTEL PROJECT**

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## GRATON HOTEL AND CASINO FINAL GENERAL CONFORMITY DETERMINATION

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4.0 GENERAL CONFORMITY DETERMINATION.....	5
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## 1.0 INTRODUCTION

An Environmental Impact Statement (EIS) is being prepared to assess the environmental consequences of the National Indian Gaming Commission's (NIGC) approval of a management contract between the Federated Indians of Graton Rancheria (Tribe) and SC Sonoma Management, LLC. The foreseeable consequence of this federal action will be the development of a casino/hotel resort either on the Wilfred site, the Stony Point site, or the Lakeville site in Sonoma County, California. The effects of seven alternatives, including an alternative use and a No Action alternative, are analyzed within the EIS.

The Bureau of Indian Affairs (BIA) will take the Wilfred site into trust for the Tribe (see EIS for site maps) if the proposed project is identified as the NIGC's preferred alternative. The Proposed Project (Alternative A) is planned for the northeast corner of the Wilfred site. The development consists of a casino/hotel resort, which would total approximately 762,300 square feet in area. The casino-hotel resort would include restaurants, a 300-room hotel, an entertainment venue, banquet/meeting space, and a pool and spa. The remainder of the Wilfred site would remain undeveloped and be used for open space, pasture, biological habitat, and recycled water sprayfields.

The Proposed Project is located adjacent to the City of Rohnert Park approximately 50 miles north of San Francisco and is located approximately 1 mile from Highway 101, which is the main north south artery in the region. The Bay Area Air Quality Management District (BAAQMD) has local jurisdiction over the region including, the Wilfred, Stony Point, and Lakeville sites, which are located within the San Francisco Bay Area Air Basin (SFAAB).

Alternative A was determined to have the highest potential to emit. Alternative A emissions are mainly due to mobile sources. Therefore, Alternative A will be the alternative analyzed for project level conformity.

## 2.0 GENERAL CONFORMITY – REGULATORY BACKGROUND

The United States Environmental Protection Agency (USEPA) promulgated the General Conformity Rule on November 30, 1993 to implement the conformity provision of Title I, Section 176 (c)(1) of the Federal Clean Air Act (CAA), which requires that the Federal government not engage, support or provide financial assistance for licensing or permitting, or approving any activity not conforming to an approved CAA implementation plan. CAA conformity is an issue that may be addressed during the NEPA process. The USEPA recommends that the conformity process be coupled with NEPA analysis.

### ***GENERAL CONFORMITY PROCESS***

The conformity process should be addressed in two phases. The first phase is the conformity applicability process, which evaluates whether the conformity regulations would apply to the Federal action (i.e. whether a determination is warranted). The second phase is the conformity determination process, which demonstrates how a Federal action conforms to the applicable State Implementation Plan (SIP).

#### ***Phase One***

The purpose of a conformity review is to evaluate whether the conformity determination requirements would apply to a Federal action under 40 CFR 93.153. There are four steps in the review process. The first three steps can be performed in any order; the four steps are shown below:

- Determine whether the proposed action causes emissions of criteria pollutants;
- Determine whether the emissions of a criteria pollutant or its precursor (i.e. NO<sub>x</sub> and VOCs for ozone) would occur in a non-attainment or maintenance area for that pollutant;
- Determine whether the Federal action is exempt from the conformity requirement as per 40 CFR 93.153 (c)(2)-(e).
- Estimate the total emissions of the pollutants of concern from the proposed action and compare the estimates to the de minimis threshold of 40 CFR 93.153 (b)(1) and (2) and to the non-attainment or maintenance area's emissions inventory for each criteria pollutant of concern.

#### ***Phase Two***

The purpose of the conformity determination, if needed, is to show if the Proposed Project conforms to the SIP.

Conformity can be shown for NO<sub>x</sub> and ROG<sub>s</sub> (Ozone precursors) by one of following four options:

- The applicable SIP specifically includes an allowance for emissions of the Proposed Project, 40 CFR 93.158 (a)(1);
- Offset emission credits are purchased for the total direct and indirect emissions, which fully offsets within the same non-attainment or maintenance area so that there is no net increase in emissions, 40 CFR 93.158 (a)(2).

- Emission from the Proposed Project coupled with the current emissions in the non-attainment area would not exceed the emissions budget in the SIP, 40 CFR 93.158 (a)(5)(i)(A).
- The Proposed Project can request that the SIP be changed by the State Governor or the State Governor's designee to include the emissions budget of the Federal action 40 CFR 93.158 (a)(5)(i)(B).

Conformity can be shown for CO by one of following two options:

- The applicable SIP specifically includes an allowance for emissions of the Proposed Project, 40 CFR 93.158 (a)(1);
- Modeling of CO shows that the action does not: cause or contribute to any new violation of any standard in any area or increase the frequency or severity of any existing violation of any standard in any area, 40 CFR 93.159 (a)(4)(i) and (b).

Even if a project is shown to conform to the SIP by one of the above methods, the project may not be determined to conform to the applicable SIP unless the total of the direct and indirect emissions for the action is in compliance or consistent with all relevant requirements and milestones contained in the applicable SIP, including but not limited to the use of baseline emissions that reflect the historical activity levels that occurred in the geographic area, reasonable further progress schedules, assumptions specified in the attainment or maintenance demonstration, prohibitions, numerical emission limits, and work practice requirements, 40 CFR 93.158 (c).

### **3.0 APPLICABILITY OF PROPOSED PROJECT**

#### ***EMISSIONS***

The Proposed Project's emissions are evaluated in two phases, construction and operation. The two phases would not overlap. Criteria pollutants will be produced during both phases. The pollutants of concern during construction are particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>), reactive organic gas (ROG), carbon monoxide (CO), and nitrogen oxides (NO<sub>x</sub>), which are generally a product of combustion, in this case from heavy equipment. PM<sub>10</sub> and PM<sub>2.5</sub> are generated during site grading and through diesel exhaust. Operational emissions are mainly emitted from vehicles visiting the casino/hotel, while area emissions from stationary source are negligible. Pollutants of concern during operation of the casino/hotel are ROG, NO<sub>x</sub> (ozone precursors), and CO. The EIS gives a detailed account of both operation and construction emissions.

#### ***ATTAINMENT/NON-ATTAINMENT AREA***

The Proposed Project would be constructed within the boundaries of the SFAAB. The SFAAB is currently designated marginal non-attainment for 8-hour ozone and is a maintenance area for CO.

**EXEMPTION**

The Federal action that is described in Section 1.0 does not result in emissions less than de minimus thresholds, does not have emissions that are associated with a conforming program, cannot be analyzed under certain other environmental regulation, and/or are not in response to an emergency or natural disaster. Thus, the Proposed Project is not exempt from a conformity determination under 40 CFR 93.153 (c)(2)-(e).

**DE MINIMUS THRESHOLDS**

Emissions were estimated for both construction and operation. The construction equipment emissions were estimated by using the USEPA and California Air Resource Board approved land use based Urban Emissions (URBEMIS) air model. Operational emissions were also estimated using URBEMIS. Because operation and construction would not overlap they were evaluated separately. Construction emissions were below the 100 tons per year (tpy) de minimus thresholds for all criteria pollutants. Operational emissions for NO<sub>x</sub> and CO exceeded the 100 tpy threshold establish under 40 CFR 93.153 (b)(1). **Table 1** shows the estimated emissions for pollutants of concern during operation. **Section 3.4, 4.4, and 5.2.3** of the EIS gives a more in-depth analysis.

**Table 1**  
Unmitigated Operational Emissions of Significant Criteria Pollutants

SOURCES	NO <sub>x</sub>	ROG	CO
	tons per year		
MOBILE	155.05	77.19	1,176.36
AREA	0.70	0.09	0.72
Total	155.75	77.29	1,177.08
Applicable Conformity Threshold	100	100	100
<i>Exceedance of Threshold</i>	<i>Yes</i>	<i>No</i>	<i>Yes</i>

Note: NO<sub>x</sub> and ROG emissions values were estimated using URBEMIS air modeling program approved by the USEPA and CARB (see **Appendix W** of the DEIS).

Source: AES, 2006

A conformity determination is required for NO<sub>x</sub> and CO. This is due to the Proposed Project being located in a non-attainment area for NO<sub>x</sub> and a maintenance area for CO, and the total NO<sub>x</sub> and CO emissions are greater than the de minimus level shown in **Table 1**.

## 4.0 GENERAL CONFORMITY DETERMINATION

### *CARBON MONOXIDE DETERMINATION*

#### *Analysis*

Air modeling analysis was performed for the EIS and the general conformity determination concurrently. The results of this analysis can be found in this EIS in **Sections 3.4, 4.4, 5.2.3, and Appendices Volume III, Appendix W.**

#### *Modeling*

Conformity can be shown by complying with the criteria detailed in Section 2.0, under phase two. According to the *Transportation Project-Level Carbon Monoxide Protocol* (CO-protocol), Institute of Transportation Studies, University of California at Davis, 1996, which is the recognized industry standard for modeling CO, if an intersection has a level of service (LOS) A, B, C, or D then the CO emissions will not cause a violation of any standard in any area. All intersections (measuring total intersections, not worst approach) within the project region operate at LOS A, B, C, or D, after the implementation of traffic mitigation measures detailed in the EIS. Thus, CO emissions would not cause a violation of the NAAQS according to Sections 4.7-3 and 4.7-4 of the CO-protocol. For completeness criteria in Section 4.7-5 of the CO-protocol was analyzed and is discussed below. Under Section 4.7-5 of the CO-protocol "other reasons" may cause adverse air quality impacts even if criteria in Sections 4.7-3 and 4.7-4 are satisfied. Finding no applicable "reasons" other than those given as examples in Section 4.7-5 for CO concentration to violate the NAAQS ; thus, the examples in Section 4.7-5 were used to evaluate the Proposed Project for CO emission buildup.

Examples in Section 4.7-5 of the CO-Protocol.

- a. *Is the project located in an urban street canyon*

The project area is flat open land surrounded by approximately 50 percent farmland and 50 percent single family residences.

- b. *High percentage of Heavy Duty Gas Trucks in the vehicle mix (for example, in manufacturing or industrial areas)*

There is no manufacturing or industry in the immediate vicinity of the project site.

- c. *High percentage of vehicles operating in cold start mode coupled with high traffic volumes*

The area does not have a high percentage of vehicles that operate in cold start mode.

- d. *Is the project site located near a significant stationary source of CO.*

The project site is not located near a significant stationary source of CO.

- e. *Is the project site located in a region with high background CO concentrations. Note that due to motor vehicle fleet turnover to cleaner cars, the budget for acceptable background CO concentrations increases over time as vehicle CO emissions drop over time. For LOS D intersections, background concentrations over the following values would be considered high:*

- *In the year 1997: 3.0 ppm*
- *In the year 2000: 4.0 ppm*
- *In the year 2005: 5.0 ppm*
- *In the year 2010: 6.0 ppm*

The ambient background concentration of CO in the project region is 2.5 ppm according to the Bay Area Air Quality Management District. Therefore, the ambient background is below the 2005 threshold as shown above.

- f. *LOS D intersections which experience meteorological conditions favorable to the formation of higher CO concentrations, and, where the intersections have pre-timed signals (as opposed to actuated signals that minimize vehicle queueing). Meteorology favorable to higher CO concentrations can be characterized as stable air conditions (atmospheric stability of "E" or "F"), relatively slow wind speeds (less than 1.5 meters per second, or 3.5 mph) that persist for at least six hours, and with consistent wind direction having greater than a 50% frequency of occurrence into a single 45 degree sector during an inclusive 8-hr period (i.e., the wind blows into the same 45 degree sector at least 4 hours out of any given inclusive 8-hr period). Intersection projects with pre-timed signals need to show that representative fall (beginning in October) and winter meteorological data are not favorable to high CO; otherwise, proceed to Section 4.4 (Level 4 in Figure 3).*

The topography of the project site is generally flat giving way to rolling hills to the east and west. Coastal climates dominate the meteorology in the region. As stated in Section 3.4 of this EIS, winters are wet and summers provide northeasterly wind above 3.5 mph according to BAAQMD meteorological data, both conditions are not conducive to high concentrations of CO.



- g. *LOS D actuated intersections (as opposed to pre-timed) which experience meteorological conditions favorable to the formation of higher CO concentrations, and, where enough traffic is queued to create problematic CO emissions. Traffic queuing can result in a CO problem when the number of vehicles queued at a red light exceeds 1206 vehicle-sec of red time. The vehicle-sec of red time is computed by measuring, for each "critical movement" or priority link (i.e., lane group), the highest vehicle-sec of red time for the approach with the longest delay during the peak 1-hr period (i.e., for one leg of an intersection, the red time multiplied by the number of vehicles queued in the priority lane(s) is 1206 vehicle-sec or greater). Meteorology favorable to higher CO concentrations can be characterized as stable air conditions (atmospheric stability of "E" or "F"), relatively slow wind speeds (less than 1.5 meters per second, or 3.5 mph) that persist for at least six hours, and with consistent wind direction having greater than a 50% frequency of occurrence into a single 45 degree sector during an inclusive 8-hr period (i.e., the wind blows into the same 45degree sector at least 4 hours out of any given inclusive 8-hr period). Intersection projects exceeding 1206 vehicle-sec of red time need to show that representative fall (beginning in October) and winter meteorological data are not favorable to high CO; otherwise, proceed to Section 4.4 (Level 4 in Figure 3).*

The same response as f applies to g.

There are no other applicable instances in the project region that would further warrant modeling of CO under the "Hot Spots" Analysis; therefore, no further analysis is needed for CO.

On November 8, 2004, CARB submitted to the USEPA a second revision to the 1998, *San Francisco CO Attainment Plan* (SIP). When the USEPA upgraded the SFBAABs NAAQS status from moderate non-attainment to maintenance a revision to the SIP was needed. This revision to the SIP included a maintenance plan: *Revision to the California State Implementation Plan for Carbon Monoxide, Updated Maintenance Plan for Ten Federal Planning Areas* (Maintenance Plan). The Maintenance Plan is an amendment or update to the SIP and covers the SFBAAB. The Maintenance Plan outlines how the SFBAAB will continue to comply with the NAAQS for the next 10 years. The Proposed Project will not violate the NAAQS according to the CO-protocol discussed above; therefore, the Proposed Project supports the Maintenance Plan and conforms to the SIP, and is consistent with conformity determination criteria, 40 CFR 93.153 (b)(1) and (2)(i and ii).

## ***NOX DETERMINATION***

### ***Analysis***

Air modeling analysis was performed for the EIS and the general conformity determination concurrently. The results of this analysis can be found in this EIS in **Sections 3.4, 4.4, 5.2.3, and Appendices Volume III, Appendix W.**

As shown above a general conformity determination is required for NOx. Conformity can be shown by complying with the criteria detailed in Section 2.0, under phase two.

### ***Specific SIP Allowance***

The SFAAB was designated as an 8-hour ozone marginal non-attainment area in June 2004. The applicable State Implementation Plan (SIP) for ozone in the SFBAAB, is the 2001, *Revised San Francisco Bay Area Ozone Attainment Plan for 1-hour National Ozone Standard*. Although the 1-hour National Ambient Air Quality Standard (NAAQS) was revoked on June 15, 2004, this plan is considered the latest air quality management plan for 8-hour ozone, per the BAAQMD. Therefore, the 2001 plan will be used to determine conformity for the Proposed Project. The following is a summary of how the 2001 plan became effective;

The California Air Resource Board (CARB) submitted to the USEPA a Bay Area Attainment Plan in August 1999 titled *San Francisco Bay Area Ozone Attainment Plan for 1-hour National Ozone Standard*. On November 1, 2001 a revised plan responding to the USEPA's disapproval of the Bay Area's 1999 Ozone Attainment Plan was adopted by the BAAQMD's Governing Board. The 2001 revised ozone attainment plan titled *Revised San Francisco Bay Area Ozone Attainment Plan for 1-hour National Ozone Standard* was submitted to the USEPA for their approval on November 30, 2001. The USEPA approved the ozone attainment plan in April 2004.

It should be noted that June 15, 2007 is the attainment deadline for the SFBAAB. Although the SFBAAB is expected to achieve attainment for 8-hour ozone, there is still a possibility that it may not reach attainment status. Furthermore the BAAQMD does not have to petition the USEPA for upgrade ozone status and may not do so until after the June 15, 2007 deadline; however, if the BAAQMD does reach attainment status its expected to be classified as an ozone maintenance area.

Emission control measures and regulations that have been included in the 2001 SIP do not include the estimated emissions of the Proposed Project. Therefore compliance cannot be determined through conformity to the most recent applicable SIP.

### ***Offsets***

Conformity can be determined by fully offsetting the Proposed Project's mitigated operational emissions through the acquisition of emission credits, which shall be real, surplus, permanent,

quantifiable, enforceable, and must be obtained and used in accordance with the federally approved SIP for the Bay Area, or an equally enforceable measure. The Proposed Project does not include the purchase of offset credits in the project description.

#### *Emission Budget*

The Proposed Project coupled with the most recent SFBAAB emissions inventory (2005) exceeds the applicable ozone SIPs emission budget.

#### *Addendum to SIP*

The Proposed Project does not anticipate that the Governor or State Governor designee will approve an addendum to the present applicable SIP, which would include the Proposed Project's estimated emissions. Therefore conformity will not be determined using this option.

#### *Mitigation*

Mitigation measures for the Proposed Project are outlined in **Section 5.2.3** of the EIS. Mitigation measures were also used to reduce project emissions estimated by URBEMIS air model. These mitigation measures can be found in **EIS Appendices Volume III, Appendix W**. The estimated mitigated emissions are shown in **Table 2**.

**Table 2**

Mitigated Operational Emissions of Significant Criteria Pollutants

SOURCES	NO <sub>x</sub> tons per year
MOBILE	148.12
AREA	0.56
<b>Total</b>	<b>148.69</b>
Applicable Conformity Threshold	100
<i>Exceedance of Threshold</i>	Yes

Note: NO<sub>x</sub> emissions values were estimated using URBEMIS air modeling program approved by the USEPA and CARB (see **Appendix W** of the DEIS).

Source: AES, 2006

The NIGC chooses to demonstrate conformity through the purchase of emissions credits to fully offset NO<sub>x</sub> emissions. SC Sonoma Management, LLC has entered into a legally binding agreement with Element Markets to purchase 149 tons per year of NO<sub>x</sub> Emission Reduction Credits (ERC) (**Addendum 1**) by the earlier of July 31, 2009 or commencement of construction. The ERCs are banked with the BAAQMD under Banking Certificate Nos. 1045, 1047, and 1053. Pursuant to BAAQMD Regulation 2 Rule 4, the Banking Certificates have been confirmed to be real, surplus, permanent, quantifiable, and enforceable. In addition, the BAAQMD confirmed this in a meeting on August 8, 2007. The Banking Certificates shall be obtained and used to

comply with the federally approved SIP for the Bay Area. The ERCs will be implemented in accordance with the contract in **Addendum 1**. The NIGC shall require mitigation measures outlined in the EIS, which are applicable to conformity pursuant to 40 CFR 93.158 (a)(5)(B)(4) and (d).

## 5.0 CONCLUSION

By entering into an agreement to purchase ERCs, before the start of construction of the Proposed Project (see **Addendum 1**), the federal action complies with the current SIP, as outlined in Section 4.0 per 40 CFR 93.160. This final conformity determination will serve as a submittal to the USEPA, CARB, BAAQMD, NIGC, and BIA per 40 CFR 93.155 (d). Responses to comments on the draft conformity determination can be found in **Appendix AA** of the final EIS. The NIGC has made this final conformity determination given that the Proposed Project is deemed to comply with the requirements of the general conformity regulations and conforms to the applicable SIP based on the agreement to purchase 149 tons of NO<sub>x</sub> ERCs prior to the start of construction (see **Addendum 1**).

# Addendum 1

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**Purchase Contract**

The purchase contract has been bound and sent to appropriate agencies under separate cover.