



Appendix 13.5
Air Quality/Greenhouse Gas Emissions Data

**Parentetical CALEEMOD Assumptions
For: Hyundai Motor America EIR
Date: November 2011**

LAND USES

Amount	Land Use Type	Unit Type	Trip Rate
419.7	General Office	1,000 square feet	11.01
50	Research and Development	1,000 square feet	8.11
1,574	Parking Structure	Parking Spaces	N/A
426	Surface Parking Lot	Parking Spaces	N/A

2011

Demolition

- Demolish existing Hyundai headquarters, approximately 220,920 square feet

Equipment (CALEEMOD Default):

Quantity	Type	Hours of Daily Operation
1	Concrete/Industrial Saw	8
3	Excavators	8
2	Rubber Tire Dozers	8

Grading

- 78,000 cy of import

Equipment (CALEEMOD Default):

Quantity	Type	Hours of Daily Operation
2	Excavators	8
1	Grader	8
1	Rubber Tired Dozer	8
2	Scrapers	8
2	Tractor/Loaders/Backhoe	8
2	Off-Highway Trucks	8

Building

- 419,700 square feet office
- 50,000 square feet technical services building

Equipment (CALEEMOD Default):

Quantity	Type	Hours of Daily Operation
1	Crane	8

3	Forklift	7
1	Generator Set	8
3	Tractor/Loader/Backhoe	6
1	Welders	8

2012

Building

- 419,700 square feet office
- 50,000 square feet technical services building

Equipment (CALEEMOD Default):

Quantity	Type	Hours of Daily Operation
1	Crane	8
3	Forklift	7
1	Generator Set	8
3	Tractor/Loader/Backhoe	6
1	Welders	8

Paving

Equipment (CALEEMOD Default):

Quantity	Type	Hours of Daily Operation
2	Pavers	8
2	Paving Equipment	8
2	Roller	8

Architectural Coating

Equipment (CALEEMOD Default):

Quantity	Type	Hours of Daily Operation
1	Air Compressor	6

2013

Building

- 419,700 square feet office
- 50,000 square feet technical services building

Equipment (CALEEMOD Default):

Quantity	Type	Hours of Daily Operation
1	Crane	8
3	Forklift	7
1	Generator Set	8
3	Tractor/Loader/Backhoe	6
1	Welders	8

Architectural Coating

Equipment (CALEEMOD Default):

Quantity	Type	Hours of Daily Operation
1	Air Compressor	6

**Hyundai Motor America North American Corporate Campus Project
South Coast Air Basin, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Research & Development	50	1000sqft
Parking Structure	1574	Space
Parking Lot	426	Space
General Office Building	419.7	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	8	Precipitation Freq (Days)	31		

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Site Acreage
- Vehicle Trips - 3,524 net daily trips
- Construction Off-road Equipment Mitigation -
- Mobile Land Use Mitigation -

- Mobile Commute Mitigation -
- Area Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Construction Phase - Estimated Construction Schedule
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment -
- Grading - 18 acres disturbed
- Demolition -
- Architectural Coating - Glass and Stone exterior

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	0.34	2.96	1.66	0.00	1.85	0.14	1.99	0.09	0.14	0.23	0.00	295.48	295.48	0.02	0.00	295.97
2012	1.72	11.98	10.58	0.02	4.31	0.62	4.93	0.09	0.60	0.70	0.00	1,821.05	1,821.05	0.12	0.00	1,823.65
2013	12.02	6.26	7.14	0.01	0.77	0.32	1.09	0.01	0.31	0.32	0.00	1,240.72	1,240.72	0.08	0.00	1,242.30

Total	14.08	21.20	19.38	0.03	6.93	1.08	8.01	0.19	1.05	1.25	0.00	3,357.25	3,357.25	0.22	0.00	3,361.92
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Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr											MT/yr				
2011	0.34	2.96	1.66	0.00	1.29	0.14	1.43	0.04	0.14	0.18	0.00	295.48	295.48	0.02	0.00	295.97
2012	1.72	11.98	10.58	0.02	3.15	0.62	3.78	0.05	0.60	0.65	0.00	1,821.05	1,821.05	0.12	0.00	1,823.65
2013	12.02	6.26	7.14	0.01	0.58	0.32	0.90	0.01	0.31	0.32	0.00	1,240.72	1,240.72	0.08	0.00	1,242.30
Total	14.08	21.20	19.38	0.03	5.02	1.08	6.11	0.10	1.05	1.15	0.00	3,357.25	3,357.25	0.22	0.00	3,361.92

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Demolition - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.11	0.00	0.11	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.15	1.23	0.71	0.00		0.06	0.06		0.06	0.06	0.00	104.80	104.80	0.01	0.00	105.06
Total	0.15	1.23	0.71	0.00	0.11	0.06	0.17	0.02	0.06	0.08	0.00	104.80	104.80	0.01	0.00	105.06

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.03	0.33	0.19	0.00	0.46	0.01	0.48	0.00	0.01	0.01	0.00	37.59	37.59	0.00	0.00	37.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.15	3.15	0.00	0.00	3.16
Total	0.03	0.33	0.21	0.00	0.46	0.01	0.48	0.00	0.01	0.01	0.00	40.74	40.74	0.00	0.00	40.78

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.05	0.00	0.05	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.15	1.23	0.71	0.00		0.06	0.06		0.06	0.06	0.00	104.80	104.80	0.01	0.00	105.06
Total	0.15	1.23	0.71	0.00	0.05	0.06	0.11	0.01	0.06	0.07	0.00	104.80	104.80	0.01	0.00	105.06

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.03	0.33	0.19	0.00	0.34	0.01	0.36	0.00	0.01	0.01	0.00	37.59	37.59	0.00	0.00	37.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.15	3.15	0.00	0.00	3.16
Total	0.03	0.33	0.21	0.00	0.34	0.01	0.36	0.00	0.01	0.01	0.00	40.74	40.74	0.00	0.00	40.78

3.3 Grading - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.15	0.00	0.15	0.07	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.07	0.59	0.27	0.00		0.03	0.03		0.03	0.03	0.00	57.45	57.45	0.01	0.00	57.56
Total	0.07	0.59	0.27	0.00	0.15	0.03	0.18	0.07	0.03	0.10	0.00	57.45	57.45	0.01	0.00	57.56

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.08	0.80	0.46	0.00	1.12	0.04	1.16	0.00	0.03	0.03	0.00	91.18	91.18	0.00	0.00	91.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	1.31	0.00	0.00	1.32
Total	0.08	0.80	0.47	0.00	1.12	0.04	1.16	0.00	0.03	0.03	0.00	92.49	92.49	0.00	0.00	92.57

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.06	0.00	0.06	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.07	0.59	0.27	0.00		0.03	0.03		0.03	0.03	0.00	57.45	57.45	0.01	0.00	57.56
Total	0.07	0.59	0.27	0.00	0.06	0.03	0.09	0.03	0.03	0.06	0.00	57.45	57.45	0.01	0.00	57.56

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.08	0.80	0.46	0.00	0.83	0.04	0.87	0.00	0.03	0.03	0.00	91.18	91.18	0.00	0.00	91.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	1.31	0.00	0.00	1.32
Total	0.08	0.80	0.47	0.00	0.83	0.04	0.87	0.00	0.03	0.03	0.00	92.49	92.49	0.00	0.00	92.57

3.3 Grading - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.15	0.00	0.15	0.07	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.64	0.77	0.00		0.07	0.07		0.07	0.07	0.00	172.34	172.34	0.02	0.00	172.67
Total	0.20	1.64	0.77	0.00	0.15	0.07	0.22	0.07	0.07	0.14	0.00	172.34	172.34	0.02	0.00	172.67

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.22	2.17	1.24	0.00	3.37	0.10	3.47	0.00	0.09	0.09	0.00	274.41	274.41	0.01	0.00	274.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	3.86	3.86	0.00	0.00	3.86
Total	0.22	2.17	1.27	0.00	3.37	0.10	3.48	0.00	0.09	0.09	0.00	278.27	278.27	0.01	0.00	278.47

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.06	0.00	0.06	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.20	1.64	0.77	0.00		0.07	0.07		0.07	0.07	0.00	172.34	172.34	0.02	0.00	172.67

Total	0.20	1.64	0.77	0.00	0.06	0.07	0.13	0.03	0.07	0.10	0.00	172.34	172.34	0.02	0.00	172.67
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.22	2.17	1.24	0.00	2.50	0.10	2.59	0.00	0.09	0.09	0.00	274.41	274.41	0.01	0.00	274.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.86	3.86	0.00	0.00	3.86
Total	0.22	2.17	1.27	0.00	2.50	0.10	2.59	0.00	0.09	0.09	0.00	278.27	278.27	0.01	0.00	278.47

3.4 Building Construction - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.45	2.90	1.87	0.00		0.20	0.20		0.20	0.20	0.00	281.36	281.36	0.04	0.00	282.13
Total	0.45	2.90	1.87	0.00		0.20	0.20		0.20	0.20	0.00	281.36	281.36	0.04	0.00	282.13

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.37	3.87	2.57	0.01	0.18	0.14	0.32	0.01	0.13	0.13	0.00	530.12	530.12	0.02	0.00		530.47
Worker	0.30	0.32	3.41	0.01	0.59	0.02	0.62	0.01	0.02	0.03	0.00	472.84	472.84	0.03	0.00		473.47
Total	0.67	4.19	5.98	0.02	0.77	0.16	0.94	0.02	0.15	0.16	0.00	1,002.96	1,002.96	0.05	0.00		1,003.94

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.45	2.90	1.87	0.00		0.20	0.20		0.20	0.20	0.00	281.36	281.36	0.04	0.00	282.13
Total	0.45	2.90	1.87	0.00		0.20	0.20		0.20	0.20	0.00	281.36	281.36	0.04	0.00	282.13

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.37	3.87	2.57	0.01	0.14	0.14	0.28	0.01	0.13	0.13	0.00	530.12	530.12	0.02	0.00	530.47
Worker	0.30	0.32	3.41	0.01	0.45	0.02	0.47	0.01	0.02	0.03	0.00	472.84	472.84	0.03	0.00	473.47
Total	0.67	4.19	5.98	0.02	0.59	0.16	0.75	0.02	0.15	0.16	0.00	1,002.96	1,002.96	0.05	0.00	1,003.94

3.4 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.39	2.54	1.74	0.00		0.17	0.17		0.17	0.17	0.00	265.13	265.13	0.03	0.00	265.79
Total	0.39	2.54	1.74	0.00		0.17	0.17		0.17	0.17	0.00	265.13	265.13	0.03	0.00	265.79

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.31	3.33	2.19	0.01	0.17	0.12	0.29	0.00	0.11	0.11	0.00	500.83	500.83	0.01	0.00	501.13
Worker	0.26	0.28	2.95	0.00	0.56	0.02	0.58	0.01	0.02	0.03	0.00	436.44	436.44	0.03	0.00	436.99
Total	0.57	3.61	5.14	0.01	0.73	0.14	0.87	0.01	0.13	0.14	0.00	937.27	937.27	0.04	0.00	938.12

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.39	2.54	1.74	0.00		0.17	0.17		0.17	0.17	0.00	265.13	265.13	0.03	0.00	265.79
Total	0.39	2.54	1.74	0.00		0.17	0.17		0.17	0.17	0.00	265.13	265.13	0.03	0.00	265.79

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.31	3.33	2.19	0.01	0.13	0.12	0.25	0.00	0.11	0.11	0.00	500.83	500.83	0.01	0.00	501.13
Worker	0.26	0.28	2.95	0.00	0.42	0.02	0.44	0.01	0.02	0.03	0.00	436.44	436.44	0.03	0.00	436.99
Total	0.57	3.61	5.14	0.01	0.55	0.14	0.69	0.01	0.13	0.14	0.00	937.27	937.27	0.04	0.00	938.12

3.5 Paving - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.18	1.07	0.64	0.00		0.09	0.09		0.09	0.09	0.00	79.88	79.88	0.01	0.00	80.18
Paving	0.01					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.19	1.07	0.64	0.00		0.09	0.09		0.09	0.09	0.00	79.88	79.88	0.01	0.00	80.18

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	6.24	6.24	0.00	0.00	6.25
Total	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	6.24	6.24	0.00	0.00	6.25

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.18	1.07	0.64	0.00		0.09	0.09		0.09	0.09	0.00	79.88	79.88	0.01	0.00	80.18
Paving	0.01					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.19	1.07	0.64	0.00		0.09	0.09		0.09	0.09	0.00	79.88	79.88	0.01	0.00	80.18

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	6.24	6.24	0.00	0.00	6.25
Total	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	6.24	6.24	0.00	0.00	6.25

3.6 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	11.02					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.10	0.06	0.00		0.01	0.01		0.01	0.01	0.00	8.54	8.54	0.00	0.00	8.57
Total	11.04	0.10	0.06	0.00		0.01	0.01		0.01	0.01	0.00	8.54	8.54	0.00	0.00	8.57

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.02	0.02	0.20	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	29.78	29.78	0.00	0.00	29.81
Total	0.02	0.02	0.20	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	29.78	29.78	0.00	0.00	29.81

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	11.02					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.10	0.06	0.00		0.01	0.01		0.01	0.01	0.00	8.54	8.54	0.00	0.00	8.57
Total	11.04	0.10	0.06	0.00		0.01	0.01		0.01	0.01	0.00	8.54	8.54	0.00	0.00	8.57

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.02	0.02	0.20	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	29.78	29.78	0.00	0.00	29.81
Total	0.02	0.02	0.20	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	29.78	29.78	0.00	0.00	29.81

Hyundai Motor America North American Corporate Campus Project
South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Research & Development	50	1000sqft
Parking Structure	1574	Space
Parking Lot	426	Space
General Office Building	419.7	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	8	Precipitation Freq (Days)	31		

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Site Acreage
- Vehicle Trips - 3,524 net daily trips
- Construction Off-road Equipment Mitigation -
- Mobile Land Use Mitigation -

- Mobile Commute Mitigation -
- Area Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Construction Phase - Estimated Construction Schedule
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment -
- Grading - 18 acres disturbed
- Demolition -
- Architectural Coating - Glass and Stone exterior

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	26.90	253.40	131.66	0.28	234.46	11.26	245.71	3.55	10.74	14.29	0.00	30,104.10	0.00	1.82	0.00	30,142.42
2012	24.91	231.88	120.77	0.28	234.46	10.18	244.64	3.55	9.72	13.27	0.00	30,158.43	0.00	1.70	0.00	30,194.19
2013	339.94	66.12	77.87	0.15	9.52	3.45	12.97	0.15	3.34	3.49	0.00	15,168.47	0.00	0.92	0.00	15,187.75

Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	26.90	253.40	131.66	0.28	171.58	11.26	182.84	1.64	10.74	12.37	0.00	30,104.10	0.00	1.82	0.00	30,142.42
2012	24.91	231.88	120.77	0.28	171.58	10.18	181.76	1.64	9.72	11.35	0.00	30,158.43	0.00	1.70	0.00	30,194.19
2013	339.94	66.12	77.87	0.15	7.16	3.45	10.61	0.15	3.34	3.49	0.00	15,168.47	0.00	0.92	0.00	15,187.75
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Demolition - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.94	0.00	4.94	0.00	0.00	0.00						0.00
Off-Road	6.95	55.96	32.24	0.05		2.94	2.94		2.94	2.94		5,252.39		0.62		5,265.48
Total	6.95	55.96	32.24	0.05	4.94	2.94	7.88	0.00	2.94	2.94		5,252.39		0.62		5,265.48

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.47	15.07	8.30	0.02	23.45	0.67	24.11	0.02	0.61	0.63		1,887.16		0.07		1,888.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.10	1.15	0.00	0.20	0.01	0.20	0.00	0.01	0.01		167.67		0.01		167.89
Total	1.57	15.17	9.45	0.02	23.65	0.68	24.31	0.02	0.62	0.64		2,054.83		0.08		2,056.56

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.11	0.00	2.11	0.00	0.00	0.00						0.00
Off-Road	6.95	55.96	32.24	0.05		2.94	2.94		2.94	2.94	0.00	5,252.39		0.62		5,265.48
Total	6.95	55.96	32.24	0.05	2.11	2.94	5.05	0.00	2.94	2.94	0.00	5,252.39		0.62		5,265.48

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.47	15.07	8.30	0.02	17.37	0.67	18.03	0.02	0.61	0.63		1,887.16		0.07		1,888.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.10	1.15	0.00	0.15	0.01	0.15	0.00	0.01	0.01		167.67		0.01		167.89
Total	1.57	15.17	9.45	0.02	17.52	0.68	18.18	0.02	0.62	0.64		2,054.83		0.08		2,056.56

3.3 Grading - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.66	0.00	6.66	3.34	0.00	3.34						0.00
Off-Road	12.44	107.07	49.22	0.11		4.79	4.79		4.79	4.79		11,516.37		1.11		11,539.72
Total	12.44	107.07	49.22	0.11	6.66	4.79	11.45	3.34	4.79	8.13		11,516.37		1.11		11,539.72

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	14.29	146.16	80.53	0.18	227.48	6.45	233.93	0.20	5.94	6.14		18,308.29		0.69		18,322.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.16	0.17	1.91	0.00	0.33	0.01	0.34	0.00	0.01	0.01		279.44		0.02		279.82
Total	14.45	146.33	82.44	0.18	227.81	6.46	234.27	0.20	5.95	6.15		18,587.73		0.71		18,602.69

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					2.85	0.00	2.85	1.43	0.00	1.43							0.00
Off-Road	12.44	107.07	49.22	0.11		4.79	4.79		4.79	4.79	0.00	11,516.37		1.11			11,539.72
Total	12.44	107.07	49.22	0.11	2.85	4.79	7.64	1.43	4.79	6.22	0.00	11,516.37		1.11			11,539.72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	14.29	146.16	80.53	0.18	168.49	6.45	174.94	0.20	5.94	6.14		18,308.29		0.69		18,322.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.16	0.17	1.91	0.00	0.24	0.01	0.26	0.00	0.01	0.01		279.44		0.02		279.82
Total	14.45	146.33	82.44	0.18	168.73	6.46	175.20	0.20	5.95	6.15		18,587.73		0.71		18,602.69

3.3 Grading - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					6.66	0.00	6.66	3.34	0.00	3.34							0.00
Off-Road	11.83	99.71	46.87	0.11		4.39	4.39		4.39	4.39		11,516.37		1.06			11,538.59
Total	11.83	99.71	46.87	0.11	6.66	4.39	11.05	3.34	4.39	7.73		11,516.37		1.06			11,538.59

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	12.92	132.02	72.15	0.18	227.48	5.78	233.25	0.20	5.31	5.52		18,368.34		0.63		18,381.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.15	0.15	1.76	0.00	0.33	0.01	0.34	0.00	0.01	0.01		273.73		0.02		274.08
Total	13.07	132.17	73.91	0.18	227.81	5.79	233.59	0.20	5.32	5.53		18,642.07		0.65		18,655.60

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.85	0.00	2.85	1.43	0.00	1.43						0.00
Off-Road	11.83	99.71	46.87	0.11		4.39	4.39		4.39	4.39	0.00	11,516.37		1.06		11,538.59

Total	11.83	99.71	46.87	0.11	2.85	4.39	7.24	1.43	4.39	5.82	0.00	11,516.37		1.06		11,538.59
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	12.92	132.02	72.15	0.18	168.49	5.78	174.27	0.20	5.31	5.52		18,368.34		0.63		18,381.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.15	0.15	1.76	0.00	0.24	0.01	0.26	0.00	0.01	0.01		273.73		0.02		274.08
Total	13.07	132.17	73.91	0.18	168.73	5.79	174.53	0.20	5.32	5.53		18,642.07		0.65		18,655.60

3.4 Building Construction - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Off-Road	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94		2,982.97		0.39		2,991.20
Total	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94		2,982.97		0.39		2,991.20

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	3.40	37.27	23.00	0.05	1.91	1.32	3.23	0.05	1.21	1.26		5,635.68		0.17		5,639.23
Worker	2.94	2.95	34.13	0.05	6.34	0.21	6.55	0.09	0.19	0.28		5,321.25		0.33		5,328.11
Total	6.34	40.22	57.13	0.10	8.25	1.53	9.78	0.14	1.40	1.54		10,956.93		0.50		10,967.34

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94	0.00	2,982.97		0.39		2,991.20
Total	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94	0.00	2,982.97		0.39		2,991.20

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	3.40	37.27	23.00	0.05	1.45	1.32	2.77	0.05	1.21	1.26		5,635.68		0.17		5,639.23
Worker	2.94	2.95	34.13	0.05	4.76	0.21	4.96	0.09	0.19	0.28		5,321.25		0.33		5,328.11
Total	6.34	40.22	57.13	0.10	6.21	1.53	7.73	0.14	1.40	1.54		10,956.93		0.50		10,967.34

3.4 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.01	25.89	17.72	0.03		1.74	1.74		1.74	1.74		2,982.97		0.36		2,990.49
Total	4.01	25.89	17.72	0.03		1.74	1.74		1.74	1.74		2,982.97		0.36		2,990.49

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	3.09	34.05	20.64	0.05	1.91	1.19	3.10	0.05	1.09	1.14		5,650.81		0.15		5,654.03
Worker	2.71	2.68	31.31	0.05	6.34	0.21	6.55	0.09	0.19	0.28		5,213.04		0.30		5,219.40
Total	5.80	36.73	51.95	0.10	8.25	1.40	9.65	0.14	1.28	1.42		10,863.85		0.45		10,873.43

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.01	25.89	17.72	0.03		1.74	1.74		1.74	1.74	0.00	2,982.97		0.36		2,990.49
Total	4.01	25.89	17.72	0.03		1.74	1.74		1.74	1.74	0.00	2,982.97		0.36		2,990.49

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	3.09	34.05	20.64	0.05	1.45	1.19	2.64	0.05	1.09	1.14		5,650.81		0.15		5,654.03
Worker	2.71	2.68	31.31	0.05	4.76	0.21	4.97	0.09	0.19	0.28		5,213.04		0.30		5,219.40
Total	5.80	36.73	51.95	0.10	6.21	1.40	7.61	0.14	1.28	1.42		10,863.85		0.45		10,873.43

3.5 Paving - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12		1,979.14		0.36		1,986.64
Paving	0.12					0.00	0.00		0.00	0.00						0.00
Total	4.10	24.16	14.30	0.02		2.12	2.12		2.12	2.12		1,979.14		0.36		1,986.64

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.09	0.09	1.05	0.00	0.20	0.01	0.20	0.00	0.01	0.01		164.24		0.01		164.45
Total	0.09	0.09	1.05	0.00	0.20	0.01	0.20	0.00	0.01	0.01		164.24		0.01		164.45

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12	0.00	1,979.14		0.36		1,986.64
Paving	0.12					0.00	0.00		0.00	0.00						0.00
Total	4.10	24.16	14.30	0.02		2.12	2.12		2.12	2.12	0.00	1,979.14		0.36		1,986.64

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.09	1.05	0.00	0.15	0.01	0.15	0.00	0.01	0.01		164.24		0.01		164.45
Total	0.09	0.09	1.05	0.00	0.15	0.01	0.15	0.00	0.01	0.01		164.24		0.01		164.45

3.6 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	329.10					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10
Total	329.59	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.54	0.54	6.25	0.01	1.27	0.04	1.31	0.02	0.04	0.06		1,040.46		0.06		1,041.73
Total	0.54	0.54	6.25	0.01	1.27	0.04	1.31	0.02	0.04	0.06		1,040.46		0.06		1,041.73

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	329.10					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10
Total	329.59	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.54	0.54	6.25	0.01	0.95	0.04	0.99	0.02	0.04	0.06		1,040.46		0.06		1,041.73
Total	0.54	0.54	6.25	0.01	0.95	0.04	0.99	0.02	0.04	0.06		1,040.46		0.06		1,041.73

**Hyundai Motor America North American Corporate Campus Project
South Coast Air Basin, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Research & Development	50	1000sqft
Parking Structure	1574	Space
Parking Lot	426	Space
General Office Building	419.7	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	8	Precipitation Freq (Days)	31		

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Site Acreage
- Vehicle Trips - 3,524 net daily trips
- Construction Off-road Equipment Mitigation -
- Mobile Land Use Mitigation -

- Mobile Commute Mitigation -
- Area Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Construction Phase - Estimated Construction Schedule
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment - Proposed Load Factors
- Off-road Equipment -
- Grading - 18 acres disturbed
- Demolition -
- Architectural Coating - Glass and Stone exterior

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	27.23	261.89	136.34	0.28	234.46	11.31	245.77	3.55	10.79	14.34	0.00	29,997.50	0.00	1.84	0.00	30,036.16
2012	25.21	239.31	125.47	0.28	234.46	10.23	244.69	3.55	9.76	13.31	0.00	30,049.43	0.00	1.72	0.00	30,085.50
2013	340.30	68.16	78.01	0.15	9.52	3.47	13.00	0.15	3.36	3.51	0.00	14,603.26	0.00	0.91	0.00	14,622.36

Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	27.23	261.89	136.34	0.28	171.58	11.31	182.89	1.64	10.79	12.43	0.00	29,997.50	0.00	1.84	0.00	30,036.16
2012	25.21	239.31	125.47	0.28	171.58	10.23	181.82	1.64	9.76	11.40	0.00	30,049.43	0.00	1.72	0.00	30,085.50
2013	340.30	68.16	78.01	0.15	7.16	3.47	10.63	0.15	3.36	3.51	0.00	14,603.26	0.00	0.91	0.00	14,622.36
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Demolition - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.94	0.00	4.94	0.00	0.00	0.00						0.00
Off-Road	6.95	55.96	32.24	0.05		2.94	2.94		2.94	2.94		5,252.39		0.62		5,265.48
Total	6.95	55.96	32.24	0.05	4.94	2.94	7.88	0.00	2.94	2.94		5,252.39		0.62		5,265.48

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.51	15.94	8.79	0.02	23.45	0.67	24.12	0.02	0.62	0.64		1,878.58		0.07		1,880.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.12	1.08	0.00	0.20	0.01	0.20	0.00	0.01	0.01		153.69		0.01		153.91
Total	1.61	16.06	9.87	0.02	23.65	0.68	24.32	0.02	0.63	0.65		2,032.27		0.08		2,034.03

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.11	0.00	2.11	0.00	0.00	0.00						0.00
Off-Road	6.95	55.96	32.24	0.05		2.94	2.94		2.94	2.94	0.00	5,252.39		0.62		5,265.48
Total	6.95	55.96	32.24	0.05	2.11	2.94	5.05	0.00	2.94	2.94	0.00	5,252.39		0.62		5,265.48

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.51	15.94	8.79	0.02	17.37	0.67	18.04	0.02	0.62	0.64		1,878.58		0.07		1,880.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.12	1.08	0.00	0.15	0.01	0.15	0.00	0.01	0.01		153.69		0.01		153.91
Total	1.61	16.06	9.87	0.02	17.52	0.68	18.19	0.02	0.63	0.65		2,032.27		0.08		2,034.03

3.3 Grading - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.66	0.00	6.66	3.34	0.00	3.34						0.00
Off-Road	12.44	107.07	49.22	0.11		4.79	4.79		4.79	4.79		11,516.37		1.11		11,539.72
Total	12.44	107.07	49.22	0.11	6.66	4.79	11.45	3.34	4.79	8.13		11,516.37		1.11		11,539.72

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	14.61	154.63	85.32	0.17	227.48	6.51	233.98	0.20	5.99	6.19		18,224.99		0.71		18,239.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.17	0.19	1.80	0.00	0.33	0.01	0.34	0.00	0.01	0.01		256.15		0.02		256.51
Total	14.78	154.82	87.12	0.17	227.81	6.52	234.32	0.20	6.00	6.20		18,481.14		0.73		18,496.44

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					2.85	0.00	2.85	1.43	0.00	1.43							0.00
Off-Road	12.44	107.07	49.22	0.11		4.79	4.79		4.79	4.79	0.00	11,516.37		1.11			11,539.72
Total	12.44	107.07	49.22	0.11	2.85	4.79	7.64	1.43	4.79	6.22	0.00	11,516.37		1.11			11,539.72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	14.61	154.63	85.32	0.17	168.49	6.51	175.00	0.20	5.99	6.19		18,224.99		0.71		18,239.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.17	0.19	1.80	0.00	0.24	0.01	0.26	0.00	0.01	0.01		256.15		0.02		256.51
Total	14.78	154.82	87.12	0.17	168.73	6.52	175.26	0.20	6.00	6.20		18,481.14		0.73		18,496.44

3.3 Grading - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					6.66	0.00	6.66	3.34	0.00	3.34							0.00
Off-Road	11.83	99.71	46.87	0.11		4.39	4.39		4.39	4.39		11,516.37		1.06			11,538.59
Total	11.83	99.71	46.87	0.11	6.66	4.39	11.05	3.34	4.39	7.73		11,516.37		1.06			11,538.59

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	13.21	139.42	76.95	0.17	227.48	5.83	233.30	0.20	5.36	5.57		18,282.19		0.64		18,295.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.16	0.17	1.65	0.00	0.33	0.01	0.34	0.00	0.01	0.01		250.87		0.02		251.20
Total	13.37	139.59	78.60	0.17	227.81	5.84	233.64	0.20	5.37	5.58		18,533.06		0.66		18,546.90

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					2.85	0.00	2.85	1.43	0.00	1.43							0.00
Off-Road	11.83	99.71	46.87	0.11		4.39	4.39		4.39	4.39	0.00	11,516.37		1.06			11,538.59

Total	11.83	99.71	46.87	0.11	2.85	4.39	7.24	1.43	4.39	5.82	0.00	11,516.37		1.06		11,538.59
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	13.21	139.42	76.95	0.17	168.49	5.83	174.32	0.20	5.36	5.57		18,282.19		0.64		18,295.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.16	0.17	1.65	0.00	0.24	0.01	0.26	0.00	0.01	0.01		250.87		0.02		251.20
Total	13.37	139.59	78.60	0.17	168.73	5.84	174.58	0.20	5.37	5.58		18,533.06		0.66		18,546.90

3.4 Building Construction - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94		2,982.97		0.39		2,991.20
Total	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94		2,982.97		0.39		2,991.20

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	3.58	39.10	25.57	0.05	1.91	1.34	3.25	0.05	1.23	1.28		5,595.25		0.18		5,598.98
Worker	3.12	3.39	32.01	0.05	6.34	0.21	6.55	0.09	0.19	0.28		4,876.85		0.31		4,883.41
Total	6.70	42.49	57.58	0.10	8.25	1.55	9.80	0.14	1.42	1.56		10,472.10		0.49		10,482.39

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94	0.00	2,982.97		0.39		2,991.20
Total	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94	0.00	2,982.97		0.39		2,991.20

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	3.58	39.10	25.57	0.05	1.45	1.34	2.79	0.05	1.23	1.28		5,595.25		0.18		5,598.98
Worker	3.12	3.39	32.01	0.05	4.76	0.21	4.96	0.09	0.19	0.28		4,876.85		0.31		4,883.41
Total	6.70	42.49	57.58	0.10	6.21	1.55	7.75	0.14	1.42	1.56		10,472.10		0.49		10,482.39

3.4 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.01	25.89	17.72	0.03		1.74	1.74		1.74	1.74		2,982.97		0.36		2,990.49
Total	4.01	25.89	17.72	0.03		1.74	1.74		1.74	1.74		2,982.97		0.36		2,990.49

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	3.25	35.61	23.21	0.05	1.91	1.21	3.12	0.05	1.11	1.16		5,608.97		0.16		5,612.34
Worker	2.88	3.08	29.29	0.05	6.34	0.21	6.55	0.09	0.19	0.28		4,776.75		0.29		4,782.83
Total	6.13	38.69	52.50	0.10	8.25	1.42	9.67	0.14	1.30	1.44		10,385.72		0.45		10,395.17

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.01	25.89	17.72	0.03		1.74	1.74		1.74	1.74	0.00	2,982.97		0.36		2,990.49
Total	4.01	25.89	17.72	0.03		1.74	1.74		1.74	1.74	0.00	2,982.97		0.36		2,990.49

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	3.25	35.61	23.21	0.05	1.45	1.21	2.66	0.05	1.11	1.16		5,608.97		0.16		5,612.34
Worker	2.88	3.08	29.29	0.05	4.76	0.21	4.97	0.09	0.19	0.28		4,776.75		0.29		4,782.83
Total	6.13	38.69	52.50	0.10	6.21	1.42	7.63	0.14	1.30	1.44		10,385.72		0.45		10,395.17

3.5 Paving - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12		1,979.14		0.36		1,986.64
Paving	0.12					0.00	0.00		0.00	0.00						0.00
Total	4.10	24.16	14.30	0.02		2.12	2.12		2.12	2.12		1,979.14		0.36		1,986.64

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.10	0.10	0.99	0.00	0.20	0.01	0.20	0.00	0.01	0.01		150.52		0.01		150.72
Total	0.10	0.10	0.99	0.00	0.20	0.01	0.20	0.00	0.01	0.01		150.52		0.01		150.72

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12	0.00	1,979.14		0.36		1,986.64
Paving	0.12					0.00	0.00		0.00	0.00						0.00
Total	4.10	24.16	14.30	0.02		2.12	2.12		2.12	2.12	0.00	1,979.14		0.36		1,986.64

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.10	0.99	0.00	0.15	0.01	0.15	0.00	0.01	0.01		150.52		0.01		150.72
Total	0.10	0.10	0.99	0.00	0.15	0.01	0.15	0.00	0.01	0.01		150.52		0.01		150.72

3.6 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	329.10					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10
Total	329.59	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.57	0.62	5.85	0.01	1.27	0.04	1.31	0.02	0.04	0.06		953.38		0.06		954.60
Total	0.57	0.62	5.85	0.01	1.27	0.04	1.31	0.02	0.04	0.06		953.38		0.06		954.60

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	329.10					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10
Total	329.59	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.57	0.62	5.85	0.01	0.95	0.04	0.99	0.02	0.04	0.06		953.38		0.06		954.60
Total	0.57	0.62	5.85	0.01	0.95	0.04	0.99	0.02	0.04	0.06		953.38		0.06		954.60

Hyundai Existing Conditions
South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	217	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			
			31		

1.3 User Entered Comments

Project Characteristics -
 Land Use - Site=18 acres
 Construction Phase - No construction-operational run only
 Vehicle Trips - 2,463 existing trips

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.04	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.01	0.10	0.09	0.00		0.00	0.01		0.00	0.01	0.00	1,096.97	1,096.97	0.05	0.02	1,103.82
Mobile	1.64	3.87	16.25	0.02	2.42	0.15	2.57	0.04	0.14	0.18	0.00	2,226.26	2,226.26	0.12	0.00	2,228.67
Waste						0.00	0.00		0.00	0.00	40.97	0.00	40.97	2.42	0.00	91.81
Water						0.00	0.00		0.00	0.00	0.00	222.90	222.90	1.19	0.03	258.06
Total	2.69	3.97	16.34	0.02	2.42	0.15	2.58	0.04	0.14	0.19	40.97	3,546.13	3,587.10	3.78	0.05	3,682.36

4.0 Mobile Detail

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	1.64	3.87	16.25	0.02	2.42	0.15	2.57	0.04	0.14	0.18	0.00	2,226.26	2,226.26	0.12	0.00	2,228.67
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated
	Weekday	Saturday	Sunday	Annual VMT

General Office Building	2,462.95	514.29	212.66	4,452,348
Total	2,462.95	514.29	212.66	4,452,348

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	985.92	985.92	0.04	0.02	992.10
NaturalGas Unmitigated	0.01	0.10	0.09	0.00		0.00	0.01		0.00	0.01	0.00	111.05	111.05	0.00	0.00	111.73
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Office Building	2.08103e+006	0.01	0.10	0.09	0.00		0.00	0.01		0.00	0.01	0.00	111.05	111.05	0.00	0.00	111.73
Total		0.01	0.10	0.09	0.00		0.00	0.01		0.00	0.01	0.00	111.05	111.05	0.00	0.00	111.73

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	3.38954e+006					985.92	0.04	0.02	992.10
Total						985.92	0.04	0.02	992.10

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	1.04	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.25					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.78					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.03	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Unmitigated					222.90	1.19	0.03	258.06
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			

General Office Building	38.5682 / 23.6386					222.90	1.19	0.03	258.06
Total						222.90	1.19	0.03	258.06

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Unmitigated					40.97	2.42	0.00	91.81
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	201.81					40.97	2.42	0.00	91.81
Total						40.97	2.42	0.00	91.81

9.0 Vegetation

Hyundai Existing Conditions
South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	217	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			
			31		

1.3 User Entered Comments

Project Characteristics -
 Land Use - Site=18 acres
 Construction Phase - No construction-operational run only
 Vehicle Trips - 2,463 existing trips

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Area	5.67	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00			0.00
Energy	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04		670.76		0.01	0.01		674.84
Mobile	12.02	27.71	118.08	0.18	19.48	1.07	20.55	0.27	1.02	1.30		18,732.83		0.89			18,751.60
Total	17.75	28.27	118.55	0.18	19.48	1.07	20.59	0.27	1.02	1.34		19,403.59		0.90	0.01		19,426.44

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Unmitigated	12.02	27.71	118.08	0.18	19.48	1.07	20.55	0.27	1.02	1.30		18,732.83		0.89			18,751.60
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT
	Weekday	Saturday	Sunday	
General Office Building	2,462.95	514.29	212.66	4,452,348

Total	2,462.95	514.29	212.66	4,452,348
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4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
	lb/day										lb/day						
NaturalGas Unmitigated	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04			670.76		0.01	0.01	674.84
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
	kBTU	lb/day										lb/day						
General Office Building	5701.45	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04			670.76		0.01	0.01	674.84
Total		0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04			670.76		0.01	0.01	674.84

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Unmitigated	5.67	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00			0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	1.38					0.00	0.00		0.00	0.00							0.00
Consumer Products	4.30					0.00	0.00		0.00	0.00							0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00			0.00
Total	5.68	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00			0.00

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Hyundai Existing Conditions
South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	217	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			
			31		

1.3 User Entered Comments

Project Characteristics -
 Land Use - Site=18 acres
 Construction Phase - No construction-operational run only
 Vehicle Trips - 2,463 existing trips

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.67	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04		670.76		0.01	0.01	674.84
Mobile	12.54	29.93	116.47	0.17	19.48	1.08	20.56	0.27	1.04	1.31		17,427.29		0.74		17,442.82
Total	18.27	30.49	116.94	0.17	19.48	1.08	20.60	0.27	1.04	1.35		18,098.05		0.75	0.01	18,117.66

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	12.54	29.93	116.47	0.17	19.48	1.08	20.56	0.27	1.04	1.31		17,427.29		0.74		17,442.82
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT
	Weekday	Saturday	Sunday	
General Office Building	2,462.95	514.29	212.66	4,452,348

Total	2,462.95	514.29	212.66	4,452,348
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4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04		670.76		0.01	0.01	674.84
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
General Office Building	5701.45	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04		670.76		0.01	0.01	674.84
Total		0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04		670.76		0.01	0.01	674.84

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	5.67	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.38					0.00	0.00		0.00	0.00						0.00
Consumer Products	4.30					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	5.68	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Hyundai Operational with Reductions
South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	419.7	1000sqft
Research & Development	50	1000sqft
Parking Lot	426	Space
Parking Structure	1574	Space

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	8	Precipitation Freq (Days)	31		

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Site=18 acres
- Construction Phase - No construction-operational run only
- Vehicle Trips -
- Mobile Land Use Mitigation -

Mobile Commute Mitigation -
 Energy Mitigation -
 Water Mitigation -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.06	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.03	0.25	0.21	0.00		0.00	0.02		0.00	0.02	0.00	2,313.77	2,313.77	0.10	0.04	2,328.22
Mobile	3.36	7.94	33.36	0.05	4.97	0.30	5.27	0.08	0.29	0.37	0.00	4,573.34	4,573.34	0.24	0.00	4,578.30
Waste						0.00	0.00		0.00	0.00	80.00	0.00	80.00	4.73	0.00	179.29
Water						0.00	0.00		0.00	0.00	0.00	524.49	524.49	3.05	0.08	614.62
Total	9.45	8.19	33.57	0.05	4.97	0.30	5.29	0.08	0.29	0.39	80.00	7,411.60	7,491.60	8.12	0.12	7,700.43

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.06	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Energy	0.02	0.19	0.16	0.00		0.00	0.01		0.00	0.01	0.00	1,780.90	1,780.90	0.08	0.03	1,792.03
Mobile	2.53	5.48	23.71	0.03	3.06	0.20	3.25	0.05	0.19	0.23	0.00	2,872.68	2,872.68	0.16	0.00	2,875.97
Waste						0.00	0.00		0.00	0.00	80.00	0.00	80.00	4.73	0.00	179.29
Water						0.00	0.00		0.00	0.00	0.00	452.34	452.34	2.54	0.07	527.46
Total	8.61	5.67	23.87	0.03	3.06	0.20	3.26	0.05	0.19	0.24	80.00	5,105.92	5,185.92	7.51	0.10	5,374.75

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

- Increase Density
- Improve Walkability Design
- Increase Transit Accessibility
- Improve Pedestrian Network
- Implement Trip Reduction Program
- Provide Ride Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.53	5.48	23.71	0.03	3.06	0.20	3.25	0.05	0.19	0.23	0.00	2,872.68	2,872.68	0.16	0.00	2,875.97
Unmitigated	3.36	7.94	33.36	0.05	4.97	0.30	5.27	0.08	0.29	0.37	0.00	4,573.34	4,573.34	0.24	0.00	4,578.30
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	4,620.90	994.69	411.31	8,367,713	5,151,265
Parking Lot	0.00	0.00	0.00		
Parking Structure	0.00	0.00	0.00		
Research & Development	405.50	95.00	55.50	779,801	480,055
Total	5,026.40	1,089.69	466.81	9,147,514	5,631,320

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00
Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					

Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	1,576.11	1,576.11	0.07	0.03	1,585.99
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	2,041.25	2,041.25	0.09	0.04	2,054.04
NaturalGas Mitigated	0.02	0.19	0.16	0.00		0.00	0.01		0.00	0.01	0.00	204.79	204.79	0.00	0.00	206.04
NaturalGas Unmitigated	0.03	0.25	0.21	0.00		0.00	0.02		0.00	0.02	0.00	272.52	272.52	0.01	0.00	274.18
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Office Building	4.02492e+006	0.02	0.20	0.17	0.00		0.00	0.01		0.00	0.01	0.00	214.79	214.79	0.00	0.00	216.09
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Research & Development	1.082e+006	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00	0.00	57.74	57.74	0.00	0.00	58.09
Total		0.03	0.25	0.21	0.00		0.00	0.01		0.00	0.01	0.00	272.53	272.53	0.00	0.00	274.18

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Office Building	2.96258e+006	0.02	0.15	0.12	0.00		0.00	0.01		0.00	0.01	0.00	158.09	158.09	0.00	0.00	159.06
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Research & Development	875080	0.00	0.04	0.04	0.00		0.00	0.00		0.00	0.00	0.00	46.70	46.70	0.00	0.00	46.98
Total		0.02	0.19	0.16	0.00		0.00	0.01		0.00	0.01	0.00	204.79	204.79	0.00	0.00	206.04

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	6.55571e+006					1,906.86	0.09	0.03	1,918.82
Parking Lot	0					0.00	0.00	0.00	0.00
Parking Structure	0					0.00	0.00	0.00	0.00
Research & Development	462000					134.38	0.01	0.00	135.22
Total						2,041.24	0.10	0.03	2,054.04

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	5.05285e+006					1,469.73	0.07	0.03	1,478.94
Parking Lot	0					0.00	0.00	0.00	0.00
Parking Structure	0					0.00	0.00	0.00	0.00
Research & Development	365740					106.38	0.00	0.00	107.05
Total						1,576.11	0.07	0.03	1,585.99

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.06	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	6.06	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.47					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	4.59					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.06	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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SubCategory	tons/yr										MT/yr					
Architectural Coating	1.47					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	4.59					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.06	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					452.34	2.54	0.07	527.46
Unmitigated					524.49	3.05	0.08	614.62
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Office Building	74.5949 / 45.7194					431.10	2.30	0.06	499.12
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
Research & Development	24.5847 / 0					93.39	0.75	0.02	115.50
Total						524.49	3.05	0.08	614.62

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Office Building	62.0928 / 42.9305					374.60	1.91	0.05	431.32
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
Research & Development	20.4643 / 0					77.74	0.63	0.02	96.14
Total						452.34	2.54	0.07	527.46

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					80.00	4.73	0.00	179.29
Unmitigated					80.00	4.73	0.00	179.29
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	390.32					79.23	4.68	0.00	177.56
Parking Lot	0					0.00	0.00	0.00	0.00
Parking Structure	0					0.00	0.00	0.00	0.00
Research & Development	3.8					0.77	0.05	0.00	1.73
Total						80.00	4.73	0.00	179.29

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	390.32					79.23	4.68	0.00	177.56
Parking Lot	0					0.00	0.00	0.00	0.00

Parking Structure	0					0.00	0.00	0.00	0.00
Research & Development	3.8					0.77	0.05	0.00	1.73
Total						80.00	4.73	0.00	179.29

9.0 Vegetation

**Hyundai Operational with Reductions
South Coast Air Basin, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	419.7	1000sqft
Research & Development	50	1000sqft
Parking Lot	426	Space
Parking Structure	1574	Space

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			
			31		

1.3 User Entered Comments

Project Characteristics -
 Land Use - Site=18 acres
 Construction Phase - No construction-operational run only
 Vehicle Trips -
 Mobile Land Use Mitigation -

Mobile Commute Mitigation -
 Energy Mitigation -
 Water Mitigation -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Area	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00			0.00
Energy	0.15	1.37	1.15	0.01		0.00	0.10		0.00	0.10		1,646.07		0.03	0.03		1,656.08
Mobile	24.60	56.72	241.75	0.38	39.91	2.20	42.11	0.56	2.10	2.66		38,375.61		1.83			38,414.05
Total	57.94	58.09	242.90	0.39	39.91	2.20	42.21	0.56	2.10	2.76		40,021.68		1.86	0.03		40,070.13

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Area	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00			0.00
Energy	0.11	1.03	0.87	0.01		0.00	0.08		0.00	0.08		1,236.96		0.02	0.02		1,244.48
Mobile	18.71	39.14	166.64	0.24	24.57	1.40	25.98	0.35	1.34	1.69		24,089.44		1.20			24,114.57

Total	52.01	40.17	167.51	0.25	24.57	1.40	26.06	0.35	1.34	1.77		25,326.40		1.22	0.02	25,359.05
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4.0 Mobile Detail

4.1 Mitigation Measures Mobile

- Increase Density
- Improve Walkability Design
- Increase Transit Accessibility
- Improve Pedestrian Network
- Implement Trip Reduction Program
- Provide Ride Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.71	39.14	166.64	0.24	24.57	1.40	25.98	0.35	1.34	1.69		24,089.44		1.20		24,114.57
Unmitigated	24.60	56.72	241.75	0.38	39.91	2.20	42.11	0.56	2.10	2.66		38,375.61		1.83		38,414.05
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
General Office Building	4,620.90	994.69	411.31	8,367,713	5,151,265
Parking Lot	0.00	0.00	0.00		

Parking Structure	0.00	0.00	0.00		
Research & Development	405.50	95.00	55.50	779,801	480,055
Total	5,026.40	1,089.69	466.81	9,147,514	5,631,320

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00
Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.11	1.03	0.87	0.01		0.00	0.08		0.00	0.08		1,236.96		0.02	0.02	1,244.48
NaturalGas Unmitigated	0.15	1.37	1.15	0.01		0.00	0.10		0.00	0.10		1,646.07		0.03	0.03	1,656.08
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
General Office Building	11027.2	0.12	1.08	0.91	0.01		0.00	0.08		0.00	0.08		1,297.32		0.02	0.02	1,305.21
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Research & Development	2964.38	0.03	0.29	0.24	0.00		0.00	0.02		0.00	0.02		348.75		0.01	0.01	350.87
Total		0.15	1.37	1.15	0.01		0.00	0.10		0.00	0.10		1,646.07		0.03	0.03	1,656.08

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
General Office Building	8.11665	0.09	0.80	0.67	0.00		0.00	0.06		0.00	0.06		954.90		0.02	0.02	960.71
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Research & Development	2.39748	0.03	0.24	0.20	0.00		0.00	0.02		0.00	0.02		282.06		0.01	0.01	283.77
Total		0.12	1.04	0.87	0.00		0.00	0.08		0.00	0.08		1,236.96		0.03	0.03	1,244.48

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.05					0.00	0.00		0.00	0.00						0.00
Consumer Products	25.14					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.05					0.00	0.00		0.00	0.00						0.00
Consumer Products	25.14					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

Total	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
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7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Hyundai Operational with Reductions South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	419.7	1000sqft
Research & Development	50	1000sqft
Parking Lot	426	Space
Parking Structure	1574	Space

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			
			31		

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Site=18 acres
- Construction Phase - No construction-operational run only
- Vehicle Trips -
- Mobile Land Use Mitigation -

Mobile Commute Mitigation -
 Energy Mitigation -
 Water Mitigation -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.15	1.37	1.15	0.01		0.00	0.10		0.00	0.10		1,646.07		0.03	0.03	1,656.08
Mobile	25.66	61.27	238.38	0.35	39.91	2.22	42.13	0.56	2.12	2.68		35,700.98		1.51		35,732.77
Total	59.00	62.64	239.53	0.36	39.91	2.22	42.23	0.56	2.12	2.78		37,347.05		1.54	0.03	37,388.85

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.11	1.03	0.87	0.01		0.00	0.08		0.00	0.08		1,236.96		0.02	0.02	1,244.48
Mobile	19.33	41.90	170.55	0.22	24.57	1.43	26.00	0.35	1.37	1.71		22,424.99		1.02		22,446.47

Total	52.63	42.93	171.42	0.23	24.57	1.43	26.08	0.35	1.37	1.79		23,661.95		1.04	0.02	23,690.95
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4.0 Mobile Detail

4.1 Mitigation Measures Mobile

- Increase Density
- Improve Walkability Design
- Increase Transit Accessibility
- Improve Pedestrian Network
- Implement Trip Reduction Program
- Provide Ride Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	19.33	41.90	170.55	0.22	24.57	1.43	26.00	0.35	1.37	1.71		22,424.99		1.02		22,446.47
Unmitigated	25.66	61.27	238.38	0.35	39.91	2.22	42.13	0.56	2.12	2.68		35,700.98		1.51		35,732.77
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

General Office Building	4,620.90	994.69	411.31	8,367,713	5,151,265
Parking Lot	0.00	0.00	0.00		
Parking Structure	0.00	0.00	0.00		
Research & Development	405.50	95.00	55.50	779,801	480,055
Total	5,026.40	1,089.69	466.81	9,147,514	5,631,320

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00
Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.11	1.03	0.87	0.01		0.00	0.08		0.00	0.08		1,236.96		0.02	0.02	1,244.48
NaturalGas Unmitigated	0.15	1.37	1.15	0.01		0.00	0.10		0.00	0.10		1,646.07		0.03	0.03	1,656.08
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
General Office Building	11027.2	0.12	1.08	0.91	0.01		0.00	0.08		0.00	0.08		1,297.32		0.02	0.02	1,305.21
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Research & Development	2964.38	0.03	0.29	0.24	0.00		0.00	0.02		0.00	0.02		348.75		0.01	0.01	350.87
Total		0.15	1.37	1.15	0.01		0.00	0.10		0.00	0.10		1,646.07		0.03	0.03	1,656.08

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
General Office Building	8.11665	0.09	0.80	0.67	0.00		0.00	0.06		0.00	0.06		954.90		0.02	0.02	960.71
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Research & Development	2.39748	0.03	0.24	0.20	0.00		0.00	0.02		0.00	0.02		282.06		0.01	0.01	283.77
Total		0.12	1.04	0.87	0.00		0.00	0.08		0.00	0.08		1,236.96		0.03	0.03	1,244.48

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.05					0.00	0.00		0.00	0.00						0.00
Consumer Products	25.14					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					

Architectural Coating	8.05					0.00	0.00		0.00	0.00						0.00
Consumer Products	25.14					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	33.19	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

**Hyundai Reduced Density Alternative-Construction
South Coast Air Basin, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	528	Space
General Office Building	173.962	1000sqft
General Office Building	8.1	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			

1.3 User Entered Comments

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- Project Characteristics -
- Land Use - 8,100 square feet=gallery area
- Construction Phase - Estimated construction schedule
- Vehicle Trips -
- Mobile Land Use Mitigation -
- Mobile Commute Mitigation -

- Energy Mitigation -
- Water Mitigation -
- Off-road Equipment - Proposed load factors
- Off-road Equipment - Proposed load factors
- Off-road Equipment - Proposed load factors
- Off-road Equipment -
- Grading -
- Trips and VMT - distance to borrow site
- Construction Off-road Equipment Mitigation -
- Architectural Coating - Glass and stone exterior

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	0.28	2.66	1.45	0.00	2.15	0.13	2.28	0.06	0.12	0.18	0.00	290.67	290.67	0.02	0.00	291.01
2012	0.57	3.60	3.07	0.01	0.18	0.23	0.41	0.00	0.22	0.23	0.00	480.14	480.14	0.04	0.00	481.07
2013	3.42	0.04	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	6.77	6.77	0.00	0.00	6.79
Total	4.27	6.30	4.57	0.01	2.33	0.36	2.70	0.06	0.34	0.41	0.00	777.58	777.58	0.06	0.00	778.87

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	0.28	2.66	1.45	0.00	1.56	0.13	1.69	0.03	0.12	0.15	0.00	290.67	290.67	0.02	0.00	291.01
2012	0.57	3.60	3.07	0.01	0.14	0.23	0.36	0.00	0.22	0.23	0.00	480.14	480.14	0.04	0.00	481.07
2013	3.42	0.04	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	6.77	6.77	0.00	0.00	6.79
Total	4.27	6.30	4.57	0.01	1.70	0.36	2.06	0.03	0.34	0.38	0.00	777.58	777.58	0.06	0.00	778.87

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Grading - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.11	0.00	0.11	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	0.10	0.83	0.44	0.00		0.04	0.04		0.04	0.04	0.00	76.78	76.78	0.01	0.00	76.96
Total	0.10	0.83	0.44	0.00	0.11	0.04	0.15	0.06	0.04	0.10	0.00	76.78	76.78	0.01	0.00	76.96

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.18	1.83	0.99	0.00	2.03	0.08	2.12	0.00	0.08	0.08	0.00	210.96	210.96	0.01	0.00	211.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	2.92	0.00	0.00	2.93
Total	0.18	1.83	1.01	0.00	2.03	0.08	2.12	0.00	0.08	0.08	0.00	213.88	213.88	0.01	0.00	214.06

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.05	0.00	0.05	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.10	0.83	0.44	0.00		0.04	0.04		0.04	0.04	0.00	76.78	76.78	0.01	0.00	76.96
Total	0.10	0.83	0.44	0.00	0.05	0.04	0.09	0.02	0.04	0.06	0.00	76.78	76.78	0.01	0.00	76.96

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.18	1.83	0.99	0.00	1.51	0.08	1.59	0.00	0.08	0.08	0.00	210.96	210.96	0.01	0.00	211.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	2.92	0.00	0.00	2.93
Total	0.18	1.83	1.01	0.00	1.51	0.08	1.59	0.00	0.08	0.08	0.00	213.88	213.88	0.01	0.00	214.06

3.3 Building Construction - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.34	2.20	1.42	0.00		0.15	0.15		0.15	0.15	0.00	213.72	213.72	0.03	0.00	214.31
Total	0.34	2.20	1.42	0.00		0.15	0.15		0.15	0.15	0.00	213.72	213.72	0.03	0.00	214.31

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.09	0.90	0.60	0.00	0.04	0.03	0.07	0.00	0.03	0.03	0.00	123.90	123.90	0.00	0.00	123.99
Worker	0.07	0.07	0.78	0.00	0.14	0.00	0.14	0.00	0.00	0.01	0.00	108.64	108.64	0.01	0.00	108.78
Total	0.16	0.97	1.38	0.00	0.18	0.03	0.21	0.00	0.03	0.04	0.00	232.54	232.54	0.01	0.00	232.77

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.34	2.20	1.42	0.00		0.15	0.15		0.15	0.15	0.00	213.72	213.72	0.03	0.00	214.31
Total	0.34	2.20	1.42	0.00		0.15	0.15		0.15	0.15	0.00	213.72	213.72	0.03	0.00	214.31

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.09	0.90	0.60	0.00	0.03	0.03	0.06	0.00	0.03	0.03	0.00	123.90	123.90	0.00	0.00	123.99
Worker	0.07	0.07	0.78	0.00	0.10	0.00	0.11	0.00	0.00	0.01	0.00	108.64	108.64	0.01	0.00	108.78
Total	0.16	0.97	1.38	0.00	0.13	0.03	0.17	0.00	0.03	0.04	0.00	232.54	232.54	0.01	0.00	232.77

3.4 Paving - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.07	0.42	0.25	0.00		0.04	0.04		0.04	0.04	0.00	31.41	31.41	0.01	0.00	31.53

Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.07	0.42	0.25	0.00		0.04	0.04		0.04	0.04	0.00	31.41	31.41	0.01	0.00	31.53

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46	2.46	0.00	0.00	2.46
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46	2.46	0.00	0.00	2.46

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.07	0.42	0.25	0.00		0.04	0.04		0.04	0.04	0.00	31.41	31.41	0.01	0.00	31.53
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.07	0.42	0.25	0.00		0.04	0.04		0.04	0.04	0.00	31.41	31.41	0.01	0.00	31.53

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46	2.46	0.00	0.00	2.46
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46	2.46	0.00	0.00	2.46

3.5 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.41					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.32	3.32	0.00	0.00	3.33
Total	3.42	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.32	3.32	0.00	0.00	3.33

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	3.45	0.00	0.00	3.46

Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	3.45	0.00	0.00	3.46
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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Archit. Coating	3.41					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.32	3.32	0.00	0.00	3.33	
Total	3.42	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.32	3.32	0.00	0.00	3.33	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	3.45	0.00	0.00	3.46
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	3.45	0.00	0.00	3.46

**Hyundai Reduced Density Alternative-Construction
South Coast Air Basin, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	528	Space
General Office Building	173.962	1000sqft
General Office Building	8.1	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			

1.3 User Entered Comments

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- Project Characteristics -
- Land Use - 8,100 square feet=gallery area
- Construction Phase - Estimated construction schedule
- Vehicle Trips -
- Mobile Land Use Mitigation -
- Mobile Commute Mitigation -

- Energy Mitigation -
- Water Mitigation -
- Off-road Equipment - Proposed load factors
- Off-road Equipment - Proposed load factors
- Off-road Equipment - Proposed load factors
- Off-road Equipment -
- Grading -
- Trips and VMT - distance to borrow site
- Construction Off-road Equipment Mitigation -
- Architectural Coating - Glass and stone exterior

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	16.53	156.36	83.68	0.18	140.09	7.48	147.56	3.48	7.09	10.57	0.00	18,878.04	0.00	1.06	0.00	18,900.27
2012	10.36	64.48	50.71	0.09	2.70	4.53	7.24	0.04	4.50	4.54	0.00	8,469.92	0.00	0.91	0.00	8,489.03
2013	263.32	3.12	3.81	0.01	0.38	0.28	0.66	0.01	0.28	0.29	0.00	592.26	0.00	0.06	0.00	593.55
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	16.53	156.36	83.68	0.18	101.71	7.48	109.18	1.58	7.09	8.67	0.00	18,878.04	0.00	1.06	0.00	18,900.27
2012	10.36	64.48	50.71	0.09	2.03	4.53	6.57	0.04	4.50	4.54	0.00	8,469.92	0.00	0.91	0.00	8,489.03
2013	263.32	3.12	3.81	0.01	0.28	0.28	0.56	0.01	0.28	0.29	0.00	592.26	0.00	0.06	0.00	593.55
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Grading - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.65	0.00	6.65	3.33	0.00	3.33						0.00

Off-Road	6.10	48.64	25.87	0.05		2.61	2.61		2.61	2.61		4,980.01		0.55		4,991.48
Total	6.10	48.64	25.87	0.05	6.65	2.61	9.26	3.33	2.61	5.94		4,980.01		0.55		4,991.48

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	10.31	107.61	56.43	0.13	133.20	4.85	138.05	0.15	4.46	4.62		13,696.83		0.50		13,707.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.12	1.38	0.00	0.23	0.01	0.24	0.00	0.01	0.01		201.20		0.01		201.47
Total	10.43	107.73	57.81	0.13	133.43	4.86	138.29	0.15	4.47	4.63		13,898.03		0.51		13,908.78

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.84	0.00	2.84	1.42	0.00	1.42						0.00
Off-Road	6.10	48.64	25.87	0.05		2.61	2.61		2.61	2.61	0.00	4,980.01		0.55		4,991.48
Total	6.10	48.64	25.87	0.05	2.84	2.61	5.45	1.42	2.61	4.03	0.00	4,980.01		0.55		4,991.48

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	10.31	107.61	56.43	0.13	98.69	4.85	103.54	0.15	4.46	4.62		13,696.83		0.50		13,707.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.12	1.38	0.00	0.18	0.01	0.18	0.00	0.01	0.01		201.20		0.01		201.47
Total	10.43	107.73	57.81	0.13	98.87	4.86	103.72	0.15	4.47	4.63		13,898.03		0.51		13,908.78

3.3 Building Construction - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94		2,982.97		0.39		2,991.20
Total	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94		2,982.97		0.39		2,991.20

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.05	11.47	7.08	0.02	0.59	0.41	0.99	0.02	0.37	0.39		1,734.06		0.05		1,735.15
Worker	0.89	0.89	10.32	0.02	1.92	0.06	1.98	0.03	0.06	0.08		1,609.51		0.10		1,611.59
Total	1.94	12.36	17.40	0.04	2.51	0.47	2.97	0.05	0.43	0.47		3,343.57		0.15		3,346.74

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94	0.00	2,982.97		0.39		2,991.20
Total	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94	0.00	2,982.97		0.39		2,991.20

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.05	11.47	7.08	0.02	0.45	0.41	0.85	0.02	0.37	0.39		1,734.06		0.05		1,735.15
Worker	0.89	0.89	10.32	0.02	1.44	0.06	1.50	0.03	0.06	0.08		1,609.51		0.10		1,611.59
Total	1.94	12.36	17.40	0.04	1.89	0.47	2.35	0.05	0.43	0.47		3,343.57		0.15		3,346.74

3.4 Paving - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12		1,979.14		0.36		1,986.64

Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12		1,979.14		0.36		1,986.64

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.09	1.05	0.00	0.20	0.01	0.20	0.00	0.01	0.01		164.24		0.01		164.45
Total	0.09	0.09	1.05	0.00	0.20	0.01	0.20	0.00	0.01	0.01		164.24		0.01		164.45

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12	0.00	1,979.14		0.36		1,986.64
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12	0.00	1,979.14		0.36		1,986.64

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.09	1.05	0.00	0.15	0.01	0.15	0.00	0.01	0.01		164.24		0.01		164.45
Total	0.09	0.09	1.05	0.00	0.15	0.01	0.15	0.00	0.01	0.01		164.24		0.01		164.45

3.5 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.67					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10
Total	263.16	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.16	0.16	1.87	0.00	0.38	0.01	0.39	0.01	0.01	0.02		311.07		0.02		311.45

Total	0.16	0.16	1.87	0.00	0.38	0.01	0.39	0.01	0.01	0.02		311.07		0.02		311.45
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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.67					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10
Total	263.16	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.16	0.16	1.87	0.00	0.28	0.01	0.30	0.01	0.01	0.02		311.07		0.02		311.45
Total	0.16	0.16	1.87	0.00	0.28	0.01	0.30	0.01	0.01	0.02		311.07		0.02		311.45

**Hyundai Reduced Density Alternative-Construction
South Coast Air Basin, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	528	Space
General Office Building	173.962	1000sqft
General Office Building	8.1	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			

1.3 User Entered Comments

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- Project Characteristics -
- Land Use - 8,100 square feet=gallery area
- Construction Phase - Estimated construction schedule
- Vehicle Trips -
- Mobile Land Use Mitigation -
- Mobile Commute Mitigation -

- Energy Mitigation -
- Water Mitigation -
- Off-road Equipment - Proposed load factors
- Off-road Equipment - Proposed load factors
- Off-road Equipment - Proposed load factors
- Off-road Equipment -
- Grading -
- Trips and VMT - distance to borrow site
- Construction Off-road Equipment Mitigation -
- Architectural Coating - Glass and stone exterior

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	16.70	162.99	85.97	0.18	140.09	7.50	147.59	3.48	7.11	10.60	0.00	18,819.22	0.00	1.07	0.00	18,841.61
2012	10.48	65.19	50.79	0.09	2.70	4.54	7.24	0.04	4.50	4.55	0.00	8,309.35	0.00	0.91	0.00	8,328.41
2013	263.33	3.14	3.69	0.01	0.38	0.28	0.66	0.01	0.28	0.29	0.00	566.22	0.00	0.06	0.00	567.50
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	16.70	162.99	85.97	0.18	101.71	7.50	109.21	1.58	7.11	8.69	0.00	18,819.22	0.00	1.07	0.00	18,841.61
2012	10.48	65.19	50.79	0.09	2.03	4.54	6.57	0.04	4.50	4.55	0.00	8,309.35	0.00	0.91	0.00	8,328.41
2013	263.33	3.14	3.69	0.01	0.28	0.28	0.56	0.01	0.28	0.29	0.00	566.22	0.00	0.06	0.00	567.50
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads
- Clean Paved Roads

3.2 Grading - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.65	0.00	6.65	3.33	0.00	3.33						0.00

Off-Road	6.10	48.64	25.87	0.05		2.61	2.61		2.61	2.61		4,980.01		0.55		4,991.48
Total	6.10	48.64	25.87	0.05	6.65	2.61	9.26	3.33	2.61	5.94		4,980.01		0.55		4,991.48

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	10.47	114.22	58.80	0.13	133.20	4.88	138.08	0.15	4.49	4.64		13,654.78		0.51		13,665.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.14	1.30	0.00	0.23	0.01	0.24	0.00	0.01	0.01		184.43		0.01		184.69
Total	10.60	114.36	60.10	0.13	133.43	4.89	138.32	0.15	4.50	4.65		13,839.21		0.52		13,850.13

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.84	0.00	2.84	1.42	0.00	1.42						0.00
Off-Road	6.10	48.64	25.87	0.05		2.61	2.61		2.61	2.61	0.00	4,980.01		0.55		4,991.48
Total	6.10	48.64	25.87	0.05	2.84	2.61	5.45	1.42	2.61	4.03	0.00	4,980.01		0.55		4,991.48

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	10.47	114.22	58.80	0.13	98.69	4.88	103.57	0.15	4.49	4.64		13,654.78		0.51		13,665.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.14	1.30	0.00	0.18	0.01	0.18	0.00	0.01	0.01		184.43		0.01		184.69
Total	10.60	114.36	60.10	0.13	98.87	4.89	103.75	0.15	4.50	4.65		13,839.21		0.52		13,850.13

3.3 Building Construction - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94		2,982.97		0.39		2,991.20
Total	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94		2,982.97		0.39		2,991.20

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.10	12.03	7.87	0.02	0.59	0.41	1.00	0.02	0.38	0.39		1,721.62		0.05		1,722.76
Worker	0.94	1.03	9.68	0.01	1.92	0.06	1.98	0.03	0.06	0.08		1,475.10		0.09		1,477.08
Total	2.04	13.06	17.55	0.03	2.51	0.47	2.98	0.05	0.44	0.47		3,196.72		0.14		3,199.84

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94	0.00	2,982.97		0.39		2,991.20
Total	4.36	27.87	17.95	0.03		1.94	1.94		1.94	1.94	0.00	2,982.97		0.39		2,991.20

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.10	12.03	7.87	0.02	0.45	0.41	0.86	0.02	0.38	0.39		1,721.62		0.05		1,722.76
Worker	0.94	1.03	9.68	0.01	1.44	0.06	1.50	0.03	0.06	0.08		1,475.10		0.09		1,477.08
Total	2.04	13.06	17.55	0.03	1.89	0.47	2.36	0.05	0.44	0.47		3,196.72		0.14		3,199.84

3.4 Paving - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12		1,979.14		0.36		1,986.64

Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12		1,979.14		0.36		1,986.64

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.10	0.99	0.00	0.20	0.01	0.20	0.00	0.01	0.01		150.52		0.01		150.72
Total	0.10	0.10	0.99	0.00	0.20	0.01	0.20	0.00	0.01	0.01		150.52		0.01		150.72

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12	0.00	1,979.14		0.36		1,986.64
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	3.98	24.16	14.30	0.02		2.12	2.12		2.12	2.12	0.00	1,979.14		0.36		1,986.64

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.10	0.99	0.00	0.15	0.01	0.15	0.00	0.01	0.01		150.52		0.01		150.72
Total	0.10	0.10	0.99	0.00	0.15	0.01	0.15	0.00	0.01	0.01		150.52		0.01		150.72

3.5 Architectural Coating - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.67					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10
Total	263.16	2.96	1.94	0.00		0.27	0.27		0.27	0.27		281.19		0.04		282.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.17	0.18	1.75	0.00	0.38	0.01	0.39	0.01	0.01	0.02		285.03		0.02		285.39

Total	0.17	0.18	1.75	0.00	0.38	0.01	0.39	0.01	0.01	0.02		285.03		0.02		285.39
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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.67					0.00	0.00		0.00	0.00						0.00
Off-Road	0.49	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10
Total	263.16	2.96	1.94	0.00		0.27	0.27		0.27	0.27	0.00	281.19		0.04		282.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.17	0.18	1.75	0.00	0.28	0.01	0.30	0.01	0.01	0.02		285.03		0.02		285.39
Total	0.17	0.18	1.75	0.00	0.28	0.01	0.30	0.01	0.01	0.02		285.03		0.02		285.39

**Hyundai Reduced Density Alternative-Operational
South Coast Air Basin, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	217	1000sqft
General Office Building	8.1	1000sqft
General Office Building	179.96	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			

1.3 User Entered Comments

Project Characteristics -
 Land Use - 217,000 sf existing office
 8,100 sf gallery
 179,962 sf proposed office
 Construction Phase - No construction-operational run only
 Vehicle Trips - 31

- Mobile Land Use Mitigation -
- Mobile Commute Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Off-road Equipment -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.93	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.02	0.19	0.16	0.00		0.00	0.01		0.00	0.01	0.00	2,047.65	2,047.65	0.09	0.04	2,060.45
Mobile	2.97	7.02	29.48	0.04	4.39	0.27	4.65	0.07	0.26	0.33	0.00	4,038.07	4,038.07	0.21	0.00	4,042.45
Waste						0.00	0.00		0.00	0.00	76.47	0.00	76.47	4.52	0.00	171.37
Water						0.00	0.00		0.00	0.00	0.00	416.07	416.07	2.22	0.06	481.71
Total	4.92	7.21	29.64	0.04	4.39	0.27	4.66	0.07	0.26	0.34	76.47	6,501.79	6,578.26	7.04	0.10	6,755.98

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Area	1.93	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.02	0.14	0.12	0.00		0.00	0.01		0.00	0.01	0.00	1,571.05	1,571.05	0.07	0.03	1,580.87
Mobile	2.24	4.84	20.97	0.03	2.70	0.17	2.87	0.04	0.16	0.21	0.00	2,537.64	2,537.64	0.14	0.00	2,540.55
Waste						0.00	0.00		0.00	0.00	76.47	0.00	76.47	4.52	0.00	171.37
Water						0.00	0.00		0.00	0.00	0.00	361.53	361.53	1.85	0.05	416.27
Total	4.19	4.98	21.09	0.03	2.70	0.17	2.88	0.04	0.16	0.22	76.47	4,470.22	4,546.69	6.58	0.08	4,709.06

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

- Increase Density
- Improve Walkability Design
- Increase Transit Accessibility
- Improve Pedestrian Network
- Implement Trip Reduction Program
- Provide Ride Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.24	4.84	20.97	0.03	2.70	0.17	2.87	0.04	0.16	0.21	0.00	2,537.64	2,537.64	0.14	0.00	2,540.55
Unmitigated	2.97	7.02	29.48	0.04	4.39	0.27	4.65	0.07	0.26	0.33	0.00	4,038.07	4,038.07	0.21	0.00	4,042.45

Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	2,389.17	514.29	212.66	4,326,409	2,664,482
General Office Building	89.18	19.20	7.94	161,493	99,458
General Office Building	1,981.36	426.51	176.36	3,587,928	2,209,679
Total	4,459.71	959.99	396.96	8,075,830	4,973,619

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					

Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	1,418.47	1,418.47	0.06	0.02	1,427.36
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	1,840.36	1,840.36	0.08	0.03	1,851.89
NaturalGas Mitigated	0.02	0.14	0.12	0.00		0.00	0.01		0.00	0.01	0.00	152.58	152.58	0.00	0.00	153.51
NaturalGas Unmitigated	0.02	0.19	0.16	0.00		0.00	0.01		0.00	0.01	0.00	207.29	207.29	0.00	0.00	208.56
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Office Building	1.72584e+006	0.01	0.08	0.07	0.00		0.00	0.01		0.00	0.01	0.00	92.10	92.10	0.00	0.00	92.66
General Office Building	2.08103e+006	0.01	0.10	0.09	0.00		0.00	0.01		0.00	0.01	0.00	111.05	111.05	0.00	0.00	111.73
General Office Building	77679	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	4.15	4.15	0.00	0.00	4.17
Total		0.02	0.18	0.16	0.00		0.00	0.02		0.00	0.02	0.00	207.30	207.30	0.00	0.00	208.56

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Office Building	1.27032e+006	0.01	0.06	0.05	0.00		0.00	0.00		0.00	0.00	0.00	67.79	67.79	0.00	0.00	68.20
General Office Building	1.53176e+006	0.01	0.08	0.06	0.00		0.00	0.01		0.00	0.01	0.00	81.74	81.74	0.00	0.00	82.24
General Office Building	57176.3	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	3.05	3.05	0.00	0.00	3.07
Total		0.02	0.14	0.11	0.00		0.00	0.01		0.00	0.01	0.00	152.58	152.58	0.00	0.00	153.51

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	126522					36.80	0.00	0.00	37.03
General Office Building	2.81101e+006					817.64	0.04	0.01	822.76
General Office Building	3.38954e+006					985.92	0.04	0.02	992.10
Total						1,840.36	0.08	0.03	1,851.89

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	2.1666e+006					630.20	0.03	0.01	634.15
General Office Building	2.61251e+006					759.90	0.03	0.01	764.66
General Office Building	97517.5					28.36	0.00	0.00	28.54
Total						1,418.46	0.06	0.02	1,427.35

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.93	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	1.93	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.47					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.46					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.93	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.47					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.46					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.93	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					361.53	1.85	0.05	416.27
Unmitigated					416.07	2.22	0.06	481.71
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Office Building	71.9928 / 44.1246					416.07	2.22	0.06	481.71

Total						416.07	2.22	0.06	481.71
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Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Office Building	59.9268 / 41.433					361.53	1.85	0.05	416.27
Total						361.53	1.85	0.05	416.27

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					76.47	4.52	0.00	171.37
Unmitigated					76.47	4.52	0.00	171.37
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	376.71					76.47	4.52	0.00	171.37
Total						76.47	4.52	0.00	171.37

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	376.71					76.47	4.52	0.00	171.37
Total						76.47	4.52	0.00	171.37

9.0 Vegetation

**Hyundai Reduced Density Alternative-Operational
South Coast Air Basin, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	217	1000sqft
General Office Building	8.1	1000sqft
General Office Building	179.96	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			

1.3 User Entered Comments

31

Project Characteristics -
 Land Use - 217,000 sf existing office
 8,100 sf gallery
 179,962 sf proposed office
 Construction Phase - No construction-operational run only
 Vehicle Trips -
 Mobile Land Use Mitigation -

- Mobile Commute Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Off-road Equipment -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.11	1.04	0.88	0.01		0.00	0.08		0.00	0.08		1,252.07		0.02	0.02	1,259.69
Mobile	21.77	50.17	213.81	0.33	35.27	1.94	37.22	0.50	1.86	2.35		33,919.89		1.62		33,953.88
Total	32.47	51.21	214.69	0.34	35.27	1.94	37.30	0.50	1.86	2.43		35,171.96		1.64	0.02	35,213.57

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.08	0.77	0.65	0.00		0.00	0.06		0.00	0.06		921.60		0.02	0.02	927.20

Mobile	16.58	34.64	147.48	0.21	21.72	1.24	22.97	0.31	1.19	1.49		21,302.33		1.06		21,324.55
Total	27.25	35.41	148.13	0.21	21.72	1.24	23.03	0.31	1.19	1.55		22,223.93		1.08	0.02	22,251.75

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

- Increase Density
- Improve Walkability Design
- Increase Transit Accessibility
- Improve Pedestrian Network
- Implement Trip Reduction Program
- Provide Ride Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	16.58	34.64	147.48	0.21	21.72	1.24	22.97	0.31	1.19	1.49		21,302.33		1.06		21,324.55
Unmitigated	21.77	50.17	213.81	0.33	35.27	1.94	37.22	0.50	1.86	2.35		33,919.89		1.62		33,953.88
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

General Office Building	2,389.17	514.29	212.66	4,326,409	2,664,482
General Office Building	89.18	19.20	7.94	161,493	99,458
General Office Building	1,981.36	426.51	176.36	3,587,928	2,209,679
Total	4,459.71	959.99	396.96	8,075,830	4,973,619

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.08	0.77	0.65	0.00		0.00	0.06		0.00	0.06		921.60		0.02	0.02	927.20
NaturalGas Unmitigated	0.11	1.04	0.88	0.01		0.00	0.08		0.00	0.08		1,252.07		0.02	0.02	1,259.69
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
General Office Building	212.819	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00		25.04		0.00	0.00	25.19
General Office Building	4728.32	0.05	0.46	0.39	0.00		0.00	0.04		0.00	0.04		556.27		0.01	0.01	559.66
General Office Building	5701.45	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04		670.76		0.01	0.01	674.84
Total		0.11	1.04	0.88	0.00		0.00	0.08		0.00	0.08		1,252.07		0.02	0.02	1,259.69

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
General Office Building	0.156647	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00		18.43		0.00	0.00	18.54
General Office Building	3.48032	0.04	0.34	0.29	0.00		0.00	0.03		0.00	0.03		409.45		0.01	0.01	411.94
General Office Building	4.1966	0.05	0.41	0.35	0.00		0.00	0.03		0.00	0.03		493.72		0.01	0.01	496.72
Total		0.09	0.77	0.65	0.00		0.00	0.06		0.00	0.06		921.60		0.02	0.02	927.20

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.57					0.00	0.00		0.00	0.00						0.00
Consumer Products	8.02					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.57					0.00	0.00		0.00	0.00						0.00
Consumer Products	8.02					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

Total	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
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7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

**Hyundai Reduced Density Alternative-Operational
South Coast Air Basin, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	217	1000sqft
General Office Building	8.1	1000sqft
General Office Building	179.96	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	8		2.2		
		Precipitation Freq (Days)			

1.3 User Entered Comments

Project Characteristics -
 Land Use - 217,000 sf existing office
 8,100 sf gallery
 179,962 sf proposed office
 Construction Phase - No construction-operational run only
 Vehicle Trips -
 Mobile Land Use Mitigation -

- Mobile Commute Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Off-road Equipment -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.11	1.04	0.88	0.01		0.00	0.08		0.00	0.08		1,252.07		0.02	0.02	1,259.69
Mobile	22.71	54.19	210.89	0.31	35.27	1.96	37.24	0.50	1.88	2.37		31,555.93		1.34		31,584.05
Total	33.41	55.23	211.77	0.32	35.27	1.96	37.32	0.50	1.88	2.45		32,808.00		1.36	0.02	32,843.74

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.08	0.77	0.65	0.00		0.00	0.06		0.00	0.06		921.60		0.02	0.02	927.20

Mobile	17.12	37.08	150.98	0.19	21.72	1.26	22.99	0.31	1.21	1.51		19,830.56		0.90		19,849.57
Total	27.79	37.85	151.63	0.19	21.72	1.26	23.05	0.31	1.21	1.57		20,752.16		0.92	0.02	20,776.77

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

- Increase Density
- Improve Walkability Design
- Increase Transit Accessibility
- Improve Pedestrian Network
- Implement Trip Reduction Program
- Provide Ride Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.12	37.08	150.98	0.19	21.72	1.26	22.99	0.31	1.21	1.51		19,830.56		0.90		19,849.57
Unmitigated	22.71	54.19	210.89	0.31	35.27	1.96	37.24	0.50	1.88	2.37		31,555.93		1.34		31,584.05
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
General Office Building	2,389.17	514.29	212.66	4,326,409	2,664,482
General Office Building	89.18	19.20	7.94	161,493	99,458

General Office Building	1,981.36	426.51	176.36	3,587,928	2,209,679
Total	4,459.71	959.99	396.96	8,075,830	4,973,619

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.08	0.77	0.65	0.00		0.00	0.06		0.00	0.06		921.60		0.02	0.02	927.20
NaturalGas Unmitigated	0.11	1.04	0.88	0.01		0.00	0.08		0.00	0.08		1,252.07		0.02	0.02	1,259.69
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
General Office Building	212.819	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00		25.04		0.00	0.00	25.19
General Office Building	4728.32	0.05	0.46	0.39	0.00		0.00	0.04		0.00	0.04		556.27		0.01	0.01	559.66
General Office Building	5701.45	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04		670.76		0.01	0.01	674.84
Total		0.11	1.04	0.88	0.00		0.00	0.08		0.00	0.08		1,252.07		0.02	0.02	1,259.69

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
General Office Building	0.156647	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00		18.43		0.00	0.00	18.54
General Office Building	3.48032	0.04	0.34	0.29	0.00		0.00	0.03		0.00	0.03		409.45		0.01	0.01	411.94
General Office Building	4.1966	0.05	0.41	0.35	0.00		0.00	0.03		0.00	0.03		493.72		0.01	0.01	496.72
Total		0.09	0.77	0.65	0.00		0.00	0.06		0.00	0.06		921.60		0.02	0.02	927.20

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Mitigated	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.57					0.00	0.00		0.00	0.00						0.00
Consumer Products	8.02					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.57					0.00	0.00		0.00	0.00						0.00
Consumer Products	8.02					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	10.59	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

1 Los Vasos-Talbert.1st
 CALINE4 - (DATED CALINE4x)

3.0.0 PC (32 BIT) VERSION
 (C) COPYRIGHT 2000, TRINITY CONSULTANTS

Run Began on 11/14/2011 at 13:40:53

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
 JUNE 1989 VERSION
 PAGE 1

JOB: Los Vasos-Talbert
 RUN: Hour 1 (WORST CASE ANGLE)
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
 BRG= WORST CASE VD= 0.0 CM/S
 CLAS= 6 (F) VS= 0.0 CM/S
 MIXH= 1000. M AMB= 3.0 PPM
 SIGTH= 5. DEGREES TEMP= 20.0 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	* * * * *	LINK X1	COORDINATES Y1	(M) X2	Y2	* * * * *	TYPE	VPH	EF (G/MI)	H (M)	W (M)
1. Link A	* * * * *	6284	-181	6284	-246	* * * * *	AG	2200	2.2	0.0	17.6
2. Link B	* * * * *	6284	-246	6284	-300	* * * * *	AG	2200	4.9	0.0	17.6
3. Link C	* * * * *	6284	-300	6279	-453	* * * * *	AG	2200	2.2	0.0	17.6
4. Link D	* * * * *	6297	-460	6298	-378	* * * * *	AG	666	2.2	0.0	17.6
5. Link E	* * * * *	6298	-378	6298	-319	* * * * *	AG	666	2.2	0.0	17.6
6. Link F	* * * * *	6298	-319	6297	-176	* * * * *	AG	666	2.2	0.0	17.6
7. Link G	* * * * *	6284	-265	6300	-314	* * * * *	AG	0	4.9	0.0	17.6
8. Link H	* * * * *	6300	-314	6462	-325	* * * * *	AG	0	2.2	0.0	29.3
9. Link I	* * * * *	6523	-313	6380	-311	* * * * *	AG	0	2.2	0.0	29.3
10. Link J	* * * * *	6380	-311	6298	-301	* * * * *	AG	0	4.9	0.0	29.3
11. Link K	* * * * *	6370	-310	6284	-326	* * * * *	AG	0	4.9	0.0	29.3

III. RECEPTOR LOCATIONS

RECEPTOR	* * * * *	COORDINATES X	(M) Y	Z
1. Recpt 1	* * * * *	6325	-280	1.7
2. Recpt 2	* * * * *	6315	-339	1.7
3. Recpt 3	* * * * *	6243	-327	1.7
4. Recpt 4	* * * * *	6246	-277	1.7

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* * * * *	BRG (DEG)	* * * * *	PRED CONC (PPM)	* * * * *	1	2	3	4	5	6	7	8
1. Recpt 1	* * * * *	300.	* * * * *	3.3	* * * * *	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.0

Los Vasos-Talbert.1st

2. Recpt	2	*	336.	*	3.5	*	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0
3. Recpt	3	*	35.	*	3.4	*	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4. Recpt	4	*	62.	*	3.3	*	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

		*CONC/LINK *(PPM)			
RECEPTOR	*	9	10	11	
1. Recpt	1	*	0.0	0.0	0.0
2. Recpt	2	*	0.0	0.0	0.0
3. Recpt	3	*	0.0	0.0	0.0
4. Recpt	4	*	0.0	0.0	0.0

1

Run Ended on 11/14/2011 at 13:40:53

Title : Orange County Subarea Annual CYr 2015 Default Title
 Version : Emfac2007 V2.3 Nov 1 2006
 Run Date : 2011/11/16 11:07:02
 Scen Year: 2015 -- All model years in the range 1971 to 2015 selected
 Season : Annual
 Area : Orange County
 I/M Stat : Enhanced Interim (2005)
 Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	LDT2-CAT	LDT2-DSL	LDT2-TOT	MDV-NCAT	MDV-CAT	MDV-DSL	MDV-TOT	LHDT1-NCAT	LHDT1-CAT	LHDT1-DSL	LHDT1-TOT	LHDT2-NCAT	LHDT2-CAT	LHDT2-DSL	LHDT2-TOT	MHDT-NCAT	MHDT-CAT	
Vehicles	2473	1290790	1757	1295020	904	171227	3388	175519	699	570954	433	572086	780	256329	593	257702	76	32640	7921	40637	12	6603	5033	11648	135	4490	
VMT/1000	30	41719	32	41780	15	6000	91	6106	11	19915	11	19938	16	9279	18	9312	2	1376	345	1722	0	271	205	476	1	199	
Trips	9490	8086050	8860	8104400	3456	1070140	20117	1093710	2700	3571040	2478	3576220	3146	1605150	3575	1611870	2505	1079310	99632	1181450	402	218330	63312	282044	6144	205071	
Total Organic Gas Emissions																											
Run Exh	0.22	2.08	0.01	2.31	0.11	0.35	0.01	0.47	0.09	1.55	0	1.64	0.16	1.04	0	1.2	0.01	0.22	0.05	0.28	0	0.03	0.04	0.07	0.01	0.05	
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0.05	0	0.01	0	0.01	0	0.01	
Start Ex	0.05	2.32	0	2.38	0.02	0.31	0	0.34	0.02	1.4	0	1.41	0.02	0.9	0	0.93	0.02	0.52	0	0.54	0	0.1	0	0.11	0.06	0.22	
Total Ex	0.27	4.41	0.01	4.69	0.13	0.67	0.01	0.81	0.1	2.95	0	3.05	0.18	1.94	0	2.12	0.02	0.79	0.05	0.86	0	0.14	0.04	0.18	0.07	0.28	
Diurnal	0.02	0.78	0	0.8	0.01	0.1	0	0.1	0.01	0.38	0	0.39	0	0.17	0	0.17	0	0	0	0	0	0	0	0	0	0	
Hot Soak	0.03	1.4	0	1.43	0.01	0.18	0	0.2	0.01	0.66	0	0.67	0	0.28	0	0.29	0	0.05	0	0.05	0	0.01	0	0.01	0	0.01	
Running	0.16	3.07	0	3.23	0.03	0.7	0	0.73	0.02	2.66	0	2.68	0.01	1.13	0	1.14	0.01	0.77	0	0.78	0	0.14	0	0.14	0.02	0.09	
Resting	0.01	0.58	0	0.6	0	0.08	0	0.08	0	0.3	0	0.3	0	0.14	0	0.14	0	0	0	0	0	0	0	0	0	0	
Total	0.49	10.24	0.01	10.74	0.19	1.73	0.01	1.92	0.14	6.96	0	7.1	0.19	3.66	0	3.85	0.04	1.62	0.05	1.71	0.01	0.29	0.04	0.34	0.09	0.38	
Carbon Monoxide Emissions																											
Run Exh	2.32	61.02	0.03	63.37	1.19	11.29	0.06	12.53	0.9	45.13	0.01	46.03	2.26	25.06	0.01	27.33	0.16	2.92	0.28	3.36	0.02	0.39	0.18	0.59	0.14	0.87	
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.26	0.01	0.27	0	0.05	0.01	0.06	0	0.06	
Start Ex	0.3	28.09	0	28.39	0.11	4.41	0	4.52	0.09	17.78	0	17.87	0.2	9.83	0	10.03	0.11	5.86	0	5.97	0.02	1.03	0	1.04	0.39	3.33	
Total Ex	2.62	89.12	0.03	91.76	1.3	15.69	0.06	17.05	0.98	62.91	0.01	63.9	2.45	34.89	0.01	37.35	0.27	9.04	0.29	9.6	0.04	1.47	0.18	1.7	0.54	4.26	
Oxides of Nitrogen Emissions																											
Run Exh	0.14	4.99	0.05	5.17	0.07	0.91	0.15	1.12	0.05	5.2	0.02	5.27	0.12	3.25	0.03	3.39	0	0.7	1.38	2.09	0	0.13	0.96	1.09	0	0.25	
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02	0.03	0	0	0.01	0.01	0	0	
Start Ex	0.01	1.91	0	1.92	0.01	0.29	0	0.29	0	1.72	0	1.73	0.01	0.98	0	0.98	0	1.94	0	1.94	0	0.39	0	0.39	0.01	0.42	
Total Ex	0.15	6.9	0.05	7.1	0.07	1.19	0.15	1.41	0.06	6.92	0.02	7	0.13	4.22	0.03	4.38	0.01	2.65	1.41	4.06	0	0.52	0.97	1.49	0.01	0.68	
Carbon Dioxide Emissions (000)																											
Run Exh	0.02	17.68	0.01	17.71	0.01	3.19	0.03	3.24	0.01	10.66	0	10.67	0.01	6.78	0.01	6.8	0	1	0.2	1.2	0	0.2	0.12	0.32	0	0.14	
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0	0	0	
Start Ex	0	0.64	0	0.64	0	0.11	0	0.11	0	0.35	0	0.35	0	0.22	0	0.22	0	0.05	0	0.05	0	0.01	0	0.01	0	0.01	
Total Ex	0.02	18.32	0.01	18.35	0.01	3.3	0.03	3.34	0.01	11.02	0	11.03	0.01	7	0.01	7.01	0	1.06	0.2	1.26	0	0.21	0.12	0.33	0	0.15	
PM10 Emissions																											
Run Exh	0	0.54	0	0.54	0	0.09	0	0.1	0	0.65	0	0.65	0	0.31	0	0.32	0	0.01	0.01	0.02	0	0	0.01	0.01	0	0	
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Start Ex	0	0.06	0	0.06	0	0.01	0	0.01	0	0.06	0	0.06	0	0.03	0	0.03	0	0	0	0	0	0	0	0	0	0	
Total Ex	0	0.59	0	0.6	0	0.1	0	0.11	0	0.71	0	0.72	0	0.34	0	0.34	0	0.01	0.01	0.03	0	0	0.01	0.01	0	0	
TireWear	0	0.37	0	0.37	0	0.05	0	0.05	0	0.18	0	0.18	0	0.08	0	0.08	0	0.02	0	0.02	0	0	0	0.01	0	0	
BrakeWr	0	0.58	0	0.58	0	0.08	0	0.08	0	0.28	0	0.28	0	0.13	0	0.13	0	0.02	0	0.02	0	0	0	0.01	0	0	
Total	0	1.54	0	1.55	0	0.24	0.01	0.24	0	1.17	0	1.17	0	0.55	0	0.56	0	0.05	0.02	0.07	0	0.01	0.01	0.02	0	0.01	
Lead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOx	0	0.18	0	0.18	0	0.03	0	0.03	0	0.11	0	0.11	0	0.07	0	0.07	0	0.01	0	0.01	0	0	0	0	0	0	
Fuel Consumption (000 gallons)																											
Gasoline	2.5	1891.37	0	1893.88	1.2	340.33	0	341.53	0.93	1138.93	0	1139.86	1.73	722.31	0	724.05	0.23	110.08	0	110.31	0.04	21.62	0	21.66	0.33	16.24	
Diesel	0	0	1.12	1.12	0	0	3.14	3.14	0	0	0.38	0.38	0	0	0.61	0.61	0	0	17.88	17.88	0	0	10.73	10.73	0	0	

MHDT-DSL	MHDT-TOT	HHDT-NCA	HHDT-CAT	HHDT-DSL	HHDT-TOT	OBUS-NCA	OBUS-CAT	OBUS-DSL	OBUS-TOT	SBUS-NCA	SBUS-CAT	SBUS-DSL	SBUS-TOT	UB-NCA	UB-CAT	UB-DSL	UB-TOT	MH-NCA	MH-CAT	MH-DSL	MH-TOT	MCY-NCA	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT	
17589	22214	15	532	5066	5613	10	622	823	1455	24	258	1444	1727	11	250	885	1146	153	17012	2336	19501	34368	35110	0	69478	2473740	
994	1194	0	36	954	990	0	22	42	64	1	10	53	64	1	27	97	125	1	201	27	229	231	298	0	529	82529	
493189	704403	680	24299	25638	50617	436	28419	23072	51926	97	1033	5778	6908	46	999	3541	4585	15	1702	234	1951	68729	70212	0	138942	16809000	
0.17	0.23	0	0.12	0.76	0.89	0	0.01	0.01	0.02	0.01	0.02	0.03	0.06	0.01	0.07	0.08	0.16	0.01	0.04	0	0.05	1.09	0.75	0	1.84	9.21	
0.01	0.02	0	0	0.11	0.11	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.19	
0	0.28	0.01	0.1	0	0.11	0	0.04	0	0.04	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0	0.19	0.16	0	0.35	6.49	
0.18	0.53	0.01	0.23	0.87	1.11	0	0.05	0.01	0.06	0.01	0.03	0.03	0.07	0.01	0.08	0.08	0.17	0.01	0.04	0	0.05	1.28	0.91	0	2.19	15.89	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.14	0	0.15	1.62	
0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.05	0	0.05	2.71	
0	0.11	0	0.02	0	0.02	0	0.02	0	0.02	0	0	0	0.01	0	0.01	0	0.01	0	0	0	0	0.04	0.16	0	0.21	9.08	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.07	0	0.08	1.2	
0.18	0.65	0.02	0.24	0.87	1.13	0.01	0.06	0.01	0.08	0.01	0.03	0.03	0.07	0.01	0.08	0.08	0.17	0.01	0.05	0	0.06	1.34	1.33	0	2.68	30.5	
1.59	2.6	0.1	1.69	2.82	4.61	0.01	0.16	0.06	0.23	0.15	0.24	0.22	0.61	0.24	0.66	0.28	1.19	0.19	1.01	0.02	1.22	13.18	3.64	0	16.82	180.5	
0.05	0.11	0	0	0.42	0.42	0	0.01	0	0.01	0	0.02	0.02	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0.92	
0	3.72	0.18	1.31	0	1.49	0.03	0.55	0	0.58	0.01	0.06	0	0.07	0	0.09	0	0.1	0	0.02	0	0.02	0.58	0.91	0	1.5	75.3	
1.64	6.43	0.28	3	3.24	6.52	0.04	0.72	0.06	0.82	0.16	0.32	0.24	0.72	0.25	0.76	0.28	1.29	0.19	1.03	0.02	1.24	13.76	4.55	0	18.31	256.71	
5.59	5.85	0	0.41	8.02	8.43	0	0.06	0.23	0.29	0	0.04	0.76	0.8	0.01	0.17	1.67	1.84	0	0.17	0.21	0.39	0.33	0.33	0	0.65	36.39	
0.14	0.14	0	0	1.11	1.11	0	0	0.01	0.01	0	0	0.06	0.06	0	0	0	0	0	0	0	0	0	0	0	0	1.36	
0	0.43	0	0.19	0	0.19	0	0.08	0	0.08	0	0	0	0	0	0.01	0	0.01	0	0	0	0	0.03	0.02	0	0.05	8.03	
5.73	6.42	0.01	0.6	9.13	9.73	0	0.14	0.24	0.38	0	0.04	0.83	0.87	0.01	0.18	1.67	1.85	0	0.17	0.21	0.39	0.35	0.35	0	0.7	45.78	
1.65	1.79	0	0.03	1.94	1.97	0	0.02	0.07	0.09	0	0.01	0.09	0.1	0	0.02	0.27	0.29	0	0.14	0.04	0.19	0.03	0.06	0	0.09	44.45	
0.01	0.01	0	0	0.06	0.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.09	
0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	
1.66	1.81	0	0.03	2.01	2.03	0	0.02	0.07	0.09	0	0.01	0.09	0.1	0	0.02	0.27	0.29	0	0.14	0.04	0.19	0.04	0.07	0	0.1	45.94	
0.18	0.18	0	0	0.38	0.38	0	0	0.01	0.01	0	0	0.03	0.03	0	0	0.03	0.03	0	0	0	0	0.01	0	0	0	0.01	2.29
0	0	0	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.16	
0.18	0.18	0	0	0.39	0.39	0	0	0.01	0.01	0	0	0.03	0.03	0	0	0.03	0.03	0	0	0	0	0.02	0	0	0	0.02	2.46
0.01	0.02	0	0	0.04	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.77	
0.01	0.02	0	0	0.03	0.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.15	
0.21	0.22	0	0	0.45	0.46	0	0	0.01	0.01	0	0	0.03	0.04	0	0	0.03	0.03	0	0.01	0	0.01	0.02	0	0	0	0.02	4.39
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.02	0.02	0	0	0.02	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.44	
0	16.56	0.08	3.24	0	3.31	0.02	1.88	0	1.91	0.11	0.95	0	1.06	0.15	2.45	0	2.6	0.13	14.7	0	14.83	6.28	7.77	0	14.05	4285.6	
149.07	149.07	0	0	180.52	180.52	0	0	6.27	6.27	0	0	8.25	8.25	0	0	24.38	24.38	0	0	4.01	4.01	0	0	0	0	406.36	