Appendix A

CalEEMod Output and Additional Traffic Information

Table A.1. Vehicle Fleet Mix

Land Use Type	Land Use Sub Type	Fleet Mix			
		Passenger Vehicles	Light Heavy Duty Trucks	Medium Heavy Duty Trucks	Heavy Heavy Duty Trucks
Commercial	Office Park	0.9820	0.0060	0.0060	0.0060
Commercial	Research & Development	0.8681	0.0353	0.0575	0.0391
Educational	Day-Care Center	0.9980	0.0007	0.0007	0.0007
Educational	K-8 Schools	0.9980	0.0007	0.0007	0.0007
Educational	High School	0.9980	0.0007	0.0007	0.0007
Educational	Place of Worship	0.9950	0.0017	0.0017	0.0017
Educational	University/College (4Yr)	0.9970	0.0010	0.0010	0.0010
Recreational	City Park	0.9768	0.0091	0.0141	0.0000
Recreational	Exposition	0.9768	0.0091	0.0141	0.0000
Recreational	Golf Course	0.9990	0.0003	0.0003	0.0003
Residential	Apartments Low Rise	0.9950	0.0040	0.0010	0.0000
Residential	Condo/Townhouse	0.9950	0.0040	0.0010	0.0000
Residential	Single Family Housing	0.9950	0.0040	0.0010	0.0000
Retail	Automobile Care Center	0.8074	0.0605	0.0962	0.0359
Retail	Strip Mall	0.8074	0.0605	0.0962	0.0359

Q:\H\Heritage Fields\EIR\Emission Calculations\Traffic\2012 Modified Proj 9500 DU Opt1\ITE_Trip_Length\[Traffic Setup_2012ModProj_ITE.xlsx]Fleet_Mix(rpt)

Table A.2-1. Trip Summary Information for the 2011 Approved Project

Land Use Category	Land Use Sub Type	Size	Size Metric	Trip Rate			Annual VMT	Mitigated Annual VMT
				Weekday	Saturday	Sunday		
Residential	Apartments Low Rise	544	Dwelling Unit	5.67	6.16	5.22	10,283,444	7,712,583
Retail	Automobile Care Center	102	1000sqft	33.34	33.34	33.34	4,516,116	3,387,087
Recreational	City Park	60	Acre	3.26	3.26	3.26	558,891	419,168
Residential	Condo/Townhouse	1609	Dwelling Unit	5.81	6.31	5.35	31,165,799	23,374,349
Educational	Day-Care Center	11	1000sqft	79.26	6.21	5.83	1,238,773	929,079
Educational	K-8 Schools	2000	Student	1.29	0.00	0.00	4,720,696	3,540,522
Recreational	Golf Course	150	Acre	5.04	5.82	5.88	1,909,088	1,431,816
Commercial	Office Park	75	1000sqft	14.25	2.05	0.95	2,664,496	1,998,372
Educational	Place of Worship	25	1000sqft	9.11	10.37	36.63	1,100,523	825,392
Commercial	Research & Development	2600	1000sqft	8.11	1.90	1.11	54,189,930	40,642,448
Residential	Single Family Housing	2741	Dwelling Unit	9.57	10.08	8.77	86,987,327	65,240,495
Retail	Strip Mall	350	1000sqft	72.66	68.92	33.49	53,497,731	40,123,298
Educational	University/College (4Yr)	7741	Student	2.38	1.30	0.00	63,041,475	47,281,106
Recreational	Exposition	708	1000sqft	23.77	23.77	23.77	74,606,292	55,954,719

Notes:

VMT is Vehicle miles travelled

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Table A.2-2. Trip Type Information for the 2011 Approved Project

Land Use Category	Land Use Sub Type	Size	Size Metric	Trip Length			Trip %		
				C-C / H-W	C-W / H-S	C-NW / H-O	C-C / H-W	C-W / H-S	C-NW / H-O
Residential	Apartments Low Rise	544	Dwelling Unit	12.70	7.00	9.50	40.20	19.20	40.60
Retail	Automobile Care Center	102	1000sqft	13.30	8.90	7.40	48.00	33.00	19.00
Recreational	City Park	60	Acre	13.30	8.90	7.40	48.00	33.00	19.00
Residential	Condo/Townhouse	1609	Dwelling Unit	12.70	7.00	9.50	40.20	19.20	40.60
Educational	Day-Care Center	11	1000sqft	13.30	8.90	7.40	82.30	12.70	5.00
Educational	K-8 Schools	2000	Student	13.30	8.90	7.40	30.00	65.00	5.00
Recreational	Golf Course	150	Acre	13.30	8.90	7.40	48.00	33.00	19.00
Commercial	Office Park	75	1000sqft	13.30	8.90	7.40	48.00	33.00	19.00
Educational	Place of Worship	25	1000sqft	13.30	8.90	7.40	95.00	0.00	5.00
Commercial	Research & Development	2600	1000sqft	13.30	8.90	7.40	48.00	33.00	19.00
Residential	Single Family Housing	2741	Dwelling Unit	12.70	7.00	9.50	40.20	19.20	40.60
Retail	Strip Mall	350	1000sqft	13.30	8.90	7.40	64.40	16.60	19.00
Educational	University/College (4Yr)	7741	Student	13.30	8.90	7.40	88.60	6.40	5.00
Recreational	Exposition	708	1000sqft	13.30	8.90	7.40	81.00	0.00	19.00

Notes:

C-C is commercial-customer, C-W is commercial-work, C-NW is commercial-nonwork

H-W is home-work, H-S is home-shop, H-O is home-other

Q:\H\Heritage Fields\EIR\Emission Calculations\Traffic\2011 Approved Proj\[Traffic Setup_2011AppProj.xlsx]Trip Type (rpt)

Table A.3-1. Trip Summary Information for the 2012 Modified Project

Land Use Category	Land Use Sub Type	Size	Size Metric	Trip Rate			Annual VMT	Mitigated Annual VMT
				Weekday	Saturday	Sunday		
Commercial	Office Park	1282	1000sqft	12.55	1.80	0.84	40,116,059	30,087,044
Commercial	Research & Development	3364	1000sqft	10.42	2.44	1.43	90,084,398	67,563,299
Educational	Day-Care Center	11	1000sqft	42.00	3.29	3.09	656,428	492,321
Educational	K-8 Schools	2000	Student	1.24	0.00	0.00	4,537,724	3,403,293
Educational	High School	2600	Student	1.24	0.44	0.18	7,055,220	5,291,415
Educational	Place of Worship	25	1000sqft	8.12	9.24	32.65	980,927	735,695
Recreational	City Park	100	Acre	3.59	3.59	3.59	1,024,070	768,052
Residential	Apartments Low Rise	1056	Dwelling Unit	6.80	7.39	6.26	23,932,776	17,949,582
Residential	Condo/Townhouse	5086	Dwelling Unit	7.15	7.77	6.59	121,247,620	90,935,715
Residential	Single Family Housing	3358	Dwelling Unit	8.79	9.26	8.05	97,879,674	73,409,755
Retail	Strip Mall	220	1000sqft	54.72	51.90	25.22	25,323,966	18,992,974

Notes:

VMT is Vehicle miles travelled

Q:\H\Heritage Fields\EIR\Emission Calculations\Traffic\2012 Modified Proj 9500 DU Opt1\ITE_Trip_Length\[Traffic Setup_2012ModProj_ITE.xlsx]VMT Trips (rpt)

Table A.3-2. Trip Type Information for the 2012 Modified Project

Land Use Category	Land Use Sub Type	Size	Size Metric	Trip Length			Trip %		
				C-C or H-W	C-W or H-S	C-NW or H-O	C-C or H-W	C-W or H-S	C-NW or H-O
Commercial	Office Park	1282	1000sqft	13.30	8.90	7.40	48.00	33.00	19.00
Commercial	Research & Development	3364	1000sqft	13.30	8.90	7.40	48.00	33.00	19.00
Educational	Day-Care Center	11	1000sqft	13.30	8.90	7.40	82.30	12.70	5.00
Educational	K-8 Schools	2000	Student	13.30	8.90	7.40	30.00	65.00	5.00
Educational	High School	2600	Student	13.30	8.90	7.40	17.20	77.80	5.00
Educational	Place of Worship	25	1000sqft	13.30	8.90	7.40	95.00	0.00	5.00
Recreational	City Park	100	Acre	13.30	8.90	7.40	48.00	33.00	19.00
Residential	Apartments Low Rise	1056	Dwelling Unit	12.70	7.00	9.50	40.20	19.20	40.60
Residential	Condo/Townhouse	5086	Dwelling Unit	12.70	7.00	9.50	40.20	19.20	40.60
Residential	Single Family Housing	3358	Dwelling Unit	12.70	7.00	9.50	40.20	19.20	40.60
Retail	Strip Mall	220	1000sqft	13.30	8.90	7.40	64.40	16.60	19.00

Notes:

C-C is commercial-customer, C-W is commercial-work, C-NW is commercial-nonwork

H-W is home-work, H-S is home-shop, H-O is home-other

Q:\H\Heritage Fields\EIR\Emission Calculations\Traffic\2012 Modified Proj 9500 DU Opt1\ITE_Trip_Length\[Traffic Setup_2012ModProj_ITE.xlsx]Trip Type (rpt)

2011 Approved Project Great Park Neighborhoods

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	75	1000sqft
Research & Development	2600	1000sqft
Day-Care Center	11	1000sqft
Elementary School	2000	Student
Place of Worship	25	1000sqft
University/College (4Yr)	7741	Student
Arena	708	1000sqft
City Park	60.1	Acre
Golf Course	150	Acre
Apartments Low Rise	544	Dwelling Unit
Condo/Townhouse	1609	Dwelling Unit
Single Family Housing	2741	Dwelling Unit
Automobile Care Center	102	1000sqft
Strip Mall	350	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)**	30		

1.3 User Entered Comments

Project Characteristics - The Utility CO2 has been modified to 488 lb/MWhr to reflect the RPS of 33% based on SCE's 2007 PUP Report of 631 lb/MWhr and 13% Renewable Portfolio.

Land Use - Unit Amount from Traffic Report and acreage from "2010 Density Bonus Plan"

Construction Phase - Placeholder

Off-road Equipment - NO Construction

Off-road Equipment - No Equipment

Trips and VMT - Set hauling to zero.

Vehicle Trips - Traffic is calculated seperately

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - 4350 Natural gas hearths.

Energy Use - CO2 intensity set to 488

Water And Wastewater - Water is done in separate run

Solid Waste - set landfill capture gas flare 100%. Arena waste generation set to 32.24 tons/year

Land Use Change -

Sequestration -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Exceed T-24 by 15%.

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	56.97	0.85	74.30	0.00		0.00	0.63		0.00	0.63	0.00	3,255.52	3,255.52	0.18	0.06	3,277.03
Energy	1.45	12.65	7.43	0.08		0.00	1.00		0.00	1.00	0.00	33,155.74	33,155.74	1.39	0.69	33,398.05
Mobile	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
Waste						0.00	0.00		0.00	0.00	1,479.35	0.00	1,479.35	73.36	0.00	3,019.84
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**58.42**	**13.50**	**81.73**	**0.08**	**0.00**	**0.00**	**1.63**	**0.00**	**0.00**	**1.63**	**1,479.35**	**36,411.26**	**37,890.61**	**74.93**	**0.75**	**39,694.92**

2.2 Overall Operational

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	56.97	0.85	74.30	0.00		0.00	0.63		0.00	0.63	0.00	3,255.52	3,255.52	0.18	0.06	3,277.03
Energy	1.27	11.14	6.58	0.07		0.00	0.88		0.00	0.88	0.00	30,796.69	30,796.69	1.32	0.64	31,023.24
Mobile	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
Waste						0.00	0.00		0.00	0.00	1,479.35	0.00	1,479.35	73.36	0.00	3,019.84
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**58.24**	**11.99**	**80.88**	**0.07**	**0.00**	**0.00**	**1.51**	**0.00**	**0.00**	**1.51**	**1,479.35**	**34,052.21**	**35,531.56**	**74.86**	**0.70**	**37,320.11**

2.3 Vegetation

Vegetation

	ROG	NOx	CO	SO2	CO2e
Category	tons				MT
New Trees					15,816.72
Total					**15,816.72**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

	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	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
Unmitigated	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Arena	0.00	0.00	0.00		
Automobile Care Center	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Place of Worship	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
University/College (4Yr)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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
Apartments Low Rise	0.00	7.00	9.50	40.20	19.20	40.60
Arena	8.90	13.30	7.40	0.00	81.00	19.00
Automobile Care Center	8.90	13.30	7.40	33.00	48.00	19.00
City Park	8.90	13.30	7.40	33.00	48.00	19.00
Condo/Townhouse	0.00	7.00	9.50	40.20	19.20	40.60

	Miles			Trip %		
Land Use	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
Day-Care Center	8.90	13.30	7.40	12.70	82.30	5.00
Elementary School	8.90	13.30	7.40	65.00	30.00	5.00
Golf Course	8.90	13.30	7.40	33.00	48.00	19.00
Office Park	8.90	13.30	7.40	33.00	48.00	19.00
Place of Worship	8.90	13.30	7.40	0.00	95.00	5.00
Research & Development	8.90	13.30	7.40	33.00	48.00	19.00
Single Family Housing	0.00	7.00	9.50	40.20	19.20	40.60
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00
University/College (4Yr)	8.90	13.30	7.40	6.40	88.60	5.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	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 Mitigated						0.00	0.00		0.00	0.00	0.00	18,197.65	18,197.65	1.08	0.41	18,347.52
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	18,849.28	18,849.28	1.12	0.42	19,004.52
NaturalGas Mitigated	1.27	11.14	6.58	0.07		0.00	0.88		0.00	0.88	0.00	12,599.04	12,599.04	0.24	0.23	12,675.72
NaturalGas Unmitigated	1.45	12.65	7.43	0.08		0.00	1.00		0.00	1.00	0.00	14,306.46	14,306.46	0.27	0.26	14,393.53
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					
Apartments Low Rise	1.02417e+007	0.06	0.47	0.20	0.00		0.00	0.04		0.00	0.04	0.00	546.53	546.53	0.01	0.01	549.86
Arena	1.53211e+007	0.08	0.75	0.63	0.00		0.00	0.06		0.00	0.06	0.00	817.59	817.59	0.02	0.01	822.57
Automobile Care Center	2.20728e+006	0.01	0.11	0.09	0.00		0.00	0.01		0.00	0.01	0.00	117.79	117.79	0.00	0.00	118.51
City Park	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
Condo/Townhouse	4.12246e+007	0.22	1.90	0.81	0.01		0.00	0.15		0.00	0.15	0.00	2,199.90	2,199.90	0.04	0.04	2,213.29
Day-Care Center	136510	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	7.28	7.28	0.00	0.00	7.33
Elementary School	2.07504e+006	0.01	0.10	0.09	0.00		0.00	0.01		0.00	0.01	0.00	110.73	110.73	0.00	0.00	111.41
Golf Course	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
Office Park	894750	0.00	0.04	0.04	0.00		0.00	0.00		0.00	0.00	0.00	47.75	47.75	0.00	0.00	48.04
Place of Worship	541000	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	28.87	28.87	0.00	0.00	29.05
Research & Development	5.6264e+007	0.30	2.76	2.32	0.02		0.00	0.21		0.00	0.21	0.00	3,002.46	3,002.46	0.06	0.06	3,020.73
Single Family Housing	1.15904e+008	0.62	5.34	2.27	0.03		0.00	0.43		0.00	0.43	0.00	6,185.09	6,185.09	0.12	0.11	6,222.73
Strip Mall	717500	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	38.29	38.29	0.00	0.00	38.52
University/College (4Yr)	2.25652e+007	0.12	1.11	0.93	0.01		0.00	0.08		0.00	0.08	0.00	1,204.17	1,204.17	0.02	0.02	1,211.49
Total		**1.42**	**12.66**	**7.44**	**0.07**		**0.00**	**0.99**		**0.00**	**0.99**	**0.00**	**14,306.45**	**14,306.45**	**0.27**	**0.25**	**14,393.53**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Low Rise	8.93055e+006	0.05	0.41	0.18	0.00		0.00	0.03		0.00	0.03	0.00	476.57	476.57	0.01	0.01	479.47
Arena	1.37515e+007	0.07	0.67	0.57	0.00		0.00	0.05		0.00	0.05	0.00	733.83	733.83	0.01	0.01	738.30
Automobile Care Center	1.98115e+006	0.01	0.10	0.08	0.00		0.00	0.01		0.00	0.01	0.00	105.72	105.72	0.00	0.00	106.36
City Park	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
Condo/Townhouse	3.58576e+007	0.19	1.65	0.70	0.01		0.00	0.13		0.00	0.13	0.00	1,913.50	1,913.50	0.04	0.04	1,925.14
Day-Care Center	117733	0.00	0.01	0.00	0.00		0.00	0.00		0.00	0.00	0.00	6.28	6.28	0.00	0.00	6.32
Elementary School	1.78961e+006	0.01	0.09	0.07	0.00		0.00	0.01		0.00	0.01	0.00	95.50	95.50	0.00	0.00	96.08
Golf Course	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
Office Park	768750	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	41.02	41.02	0.00	0.00	41.27
Place of Worship	485575	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	25.91	25.91	0.00	0.00	26.07
Research & Development	5.04998e+007	0.27	2.48	2.08	0.01		0.00	0.19		0.00	0.19	0.00	2,694.86	2,694.86	0.05	0.05	2,711.26
Single Family Housing	1.00958e+008	0.54	4.65	1.98	0.03		0.00	0.38		0.00	0.38	0.00	5,387.48	5,387.48	0.10	0.10	5,420.27
Strip Mall	665000	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	35.49	35.49	0.00	0.00	35.70
University/College (4Yr)	2.02923e+007	0.11	0.99	0.84	0.01		0.00	0.08		0.00	0.08	0.00	1,082.88	1,082.88	0.02	0.02	1,089.47
Total		**1.25**	**11.14**	**6.58**	**0.06**		**0.00**	**0.88**		**0.00**	**0.88**	**0.00**	**12,599.04**	**12,599.04**	**0.23**	**0.23**	**12,675.71**

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			
Apartments Low Rise	1.92553e+006					426.22	0.03	0.01	429.73
Arena	6.54192e+006					1,448.07	0.09	0.03	1,460.00
Automobile Care Center	942480					208.62	0.01	0.00	210.34
City Park	0					0.00	0.00	0.00	0.00
Condo/Townhouse	6.81204e+006					1,507.87	0.09	0.03	1,520.28
Day-Care Center	76010					16.83	0.00	0.00	16.96
Elementary School	1.1554e+006					255.75	0.02	0.01	257.86
Golf Course	0					0.00	0.00	0.00	0.00
Office Park	1.28775e+006					285.05	0.02	0.01	287.39
Place of Worship	231000					51.13	0.00	0.00	51.55
Research & Development	2.4024e+007					5,317.79	0.32	0.12	5,361.58
Single Family Housing	1.76887e+007					3,915.45	0.23	0.09	3,947.69
Strip Mall	4.48e+006					991.66	0.06	0.02	999.83
University/College (4Yr)	1.999e+007					4,424.85	0.26	0.10	4,461.29
Total						**18,849.29**	**1.13**	**0.42**	**19,004.50**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	1.90398e+006					421.45	0.03	0.01	424.92
Arena	6.33058e+006					1,401.29	0.08	0.03	1,412.83
Automobile Care Center	912033					201.88	0.01	0.00	203.54
City Park	0					0.00	0.00	0.00	0.00
Condo/Townhouse	6.74578e+006					1,493.20	0.09	0.03	1,505.50
Day-Care Center	72198.5					15.98	0.00	0.00	16.11
Elementary School	1.09746e+006					242.93	0.01	0.01	244.93
Golf Course	0					0.00	0.00	0.00	0.00
Office Park	1.21361e+006					268.64	0.02	0.01	270.85
Place of Worship	223538					49.48	0.00	0.00	49.89
Research & Development	2.32479e+007					5,145.99	0.31	0.12	5,188.37
Single Family Housing	1.74837e+007					3,870.06	0.23	0.09	3,901.94
Strip Mall	4.29205e+006					950.06	0.06	0.02	957.88
University/College (4Yr)	1.86882e+007					4,136.68	0.25	0.09	4,170.75
Total						**18,197.64**	**1.09**	**0.41**	**18,347.51**

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	56.97	0.85	74.30	0.00		0.00	0.63		0.00	0.63	0.00	3,255.52	3,255.52	0.18	0.06	3,277.03
Unmitigated	56.97	0.85	74.30	0.00		0.00	0.63		0.00	0.63	0.00	3,255.52	3,255.52	0.18	0.06	3,277.03
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	9.09					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	45.34					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.32	0.00	0.02	0.00		0.00	0.22		0.00	0.22	0.00	3,133.79	3,133.79	0.06	0.06	3,152.86
Landscaping	2.22	0.85	74.28	0.00		0.00	0.41		0.00	0.41	0.00	121.73	121.73	0.12	0.00	124.16
Total	**56.97**	**0.85**	**74.30**	**0.00**		**0.00**	**0.63**		**0.00**	**0.63**	**0.00**	**3,255.52**	**3,255.52**	**0.18**	**0.06**	**3,277.02**

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	9.09					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	45.34					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.32	0.00	0.02	0.00		0.00	0.22		0.00	0.22	0.00	3,133.79	3,133.79	0.06	0.06	3,152.86
Landscaping	2.22	0.85	74.28	0.00		0.00	0.41		0.00	0.41	0.00	121.73	121.73	0.12	0.00	124.16
Total	**56.97**	**0.85**	**74.30**	**0.00**		**0.00**	**0.63**		**0.00**	**0.63**	**0.00**	**3,255.52**	**3,255.52**	**0.18**	**0.06**	**3,277.02**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen 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					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
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			
Apartments Low Rise	0 / 0					0.00	0.00	0.00	0.00
Arena	0 / 0					0.00	0.00	0.00	0.00
Automobile Care Center	0 / 0					0.00	0.00	0.00	0.00
City Park	0 / 0					0.00	0.00	0.00	0.00
Condo/Townhouse	0 / 0					0.00	0.00	0.00	0.00
Day-Care Center	0 / 0					0.00	0.00	0.00	0.00
Elementary School	0 / 0					0.00	0.00	0.00	0.00
Golf Course	0 / 0					0.00	0.00	0.00	0.00
Office Park	0 / 0					0.00	0.00	0.00	0.00
Place of Worship	0 / 0					0.00	0.00	0.00	0.00
Research & Development	0 / 0					0.00	0.00	0.00	0.00
Single Family Housing	0 / 0					0.00	0.00	0.00	0.00
Strip Mall	0 / 0					0.00	0.00	0.00	0.00
University/College (4Yr)	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	0 / 0					0.00	0.00	0.00	0.00
Arena	0 / 0					0.00	0.00	0.00	0.00
Automobile Care Center	0 / 0					0.00	0.00	0.00	0.00
City Park	0 / 0					0.00	0.00	0.00	0.00
Condo/Townhouse	0 / 0					0.00	0.00	0.00	0.00
Day-Care Center	0 / 0					0.00	0.00	0.00	0.00
Elementary School	0 / 0					0.00	0.00	0.00	0.00
Golf Course	0 / 0					0.00	0.00	0.00	0.00
Office Park	0 / 0					0.00	0.00	0.00	0.00
Place of Worship	0 / 0					0.00	0.00	0.00	0.00
Research & Development	0 / 0					0.00	0.00	0.00	0.00
Single Family Housing	0 / 0					0.00	0.00	0.00	0.00
Strip Mall	0 / 0					0.00	0.00	0.00	0.00
University/College (4Yr)	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

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					1,479.35	73.36	0.00	3,019.84
Unmitigated					1,479.35	73.36	0.00	3,019.84
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			
Apartments Low Rise	250.24					51.97	2.58	0.00	106.08
Arena	32.24					6.70	0.33	0.00	13.67
Automobile Care Center	389.64					80.91	4.01	0.00	165.17
City Park	5.17					1.07	0.05	0.00	2.19
Condo/Townhouse	740.14					153.70	7.62	0.00	313.75
Day-Care Center	14.3					2.97	0.15	0.00	6.06
Elementary School	365					75.80	3.76	0.00	154.73
Golf Course	139.5					28.97	1.44	0.00	59.14
Office Park	69.75					14.48	0.72	0.00	29.57
Place of Worship	142.5					29.59	1.47	0.00	60.41
Research & Development	197.58					41.03	2.03	0.00	83.76
Single Family Housing	2997.51					622.47	30.87	0.00	1,270.67
Strip Mall	367.5					76.32	3.78	0.00	155.79
University/College (4Yr)	1412.73					293.37	14.55	0.00	598.87
Total						**1,479.35**	**73.36**	**0.00**	**3,019.86**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	250.24					51.97	2.58	0.00	106.08
Arena	32.24					6.70	0.33	0.00	13.67
Automobile Care Center	389.64					80.91	4.01	0.00	165.17
City Park	5.17					1.07	0.05	0.00	2.19
Condo/Townhouse	740.14					153.70	7.62	0.00	313.75
Day-Care Center	14.3					2.97	0.15	0.00	6.06
Elementary School	365					75.80	3.76	0.00	154.73
Golf Course	139.5					28.97	1.44	0.00	59.14
Office Park	69.75					14.48	0.72	0.00	29.57
Place of Worship	142.5					29.59	1.47	0.00	60.41
Research & Development	197.58					41.03	2.03	0.00	83.76
Single Family Housing	2997.51					622.47	30.87	0.00	1,270.67
Strip Mall	367.5					76.32	3.78	0.00	155.79
University/College (4Yr)	1412.73					293.37	14.55	0.00	598.87
Total						**1,479.35**	**73.36**	**0.00**	**3,019.86**

9.0 Vegetation

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons				MT			
Unmitigated					15,816.72	0.00	0.00	15,816.72
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

9.1 Net New Trees

Species Class

	Number of Trees	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		tons				MT			
Miscellaneous	22340					15,816.72	0.00	0.00	15,816.72
Total						**15,816.72**	**0.00**	**0.00**	**15,816.72**

2011 Approved Project Great Park Neighborhoods

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	75	1000sqft
Research & Development	2600	1000sqft
Day-Care Center	11	1000sqft
Elementary School	2000	Student
Place of Worship	25	1000sqft
University/College (4Yr)	7741	Student
Arena	708	1000sqft
City Park	60.1	Acre
Golf Course	150	Acre
Apartments Low Rise	544	Dwelling Unit
Condo/Townhouse	1609	Dwelling Unit
Single Family Housing	2741	Dwelling Unit
Automobile Care Center	102	1000sqft
Strip Mall	350	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)**	30		

1.3 User Entered Comments

Project Characteristics - The Utility CO2 has been modified to 488 lb/MWhr to reflect the RPS of 33% based on SCE's 2007 PUP Report of 631 lb/MWhr and 13% Renewable Portfolio.

Land Use - Unit Amount from Traffic Report and acreage from "2010 Density Bonus Plan"

Construction Phase - Placeholder

Off-road Equipment - NO Construction

Off-road Equipment - No Equipment

Trips and VMT - Set hauling to zero.

Vehicle Trips - Traffic is calculated seperately

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - 4350 Natural gas hearths.

Energy Use - CO2 intensity set to 488

Water And Wastewater - Water is done in separate run

Solid Waste - set landfill capture gas flare 100%. Arena waste generation set to 32.24 tons/year

Land Use Change -

Sequestration -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - Exceed T-24 by 15%.

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	318.88	4.68	407.83	0.02		0.00	8.09		0.00	8.03	0.00	92,853.51		2.47	1.69	93,428.82
Energy	7.92	69.31	40.71	0.43		0.00	5.47		0.00	5.47		86,411.92		1.66	1.58	86,937.80
Mobile	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	**326.80**	**73.99**	**448.54**	**0.45**	**0.00**	**0.00**	**13.56**	**0.00**	**0.00**	**13.50**	**0.00**	**179,265.43**		**4.13**	**3.27**	**180,366.62**

2.2 Overall Operational

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	318.88	4.68	407.83	0.02		0.00	8.09		0.00	8.03	0.00	92,853.51		2.47	1.69	93,428.82
Energy	6.98	61.07	36.04	0.38		0.00	4.82		0.00	4.82		76,099.00		1.46	1.40	76,562.13
Mobile	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	**325.86**	**65.75**	**443.87**	**0.40**	**0.00**	**0.00**	**12.91**	**0.00**	**0.00**	**12.85**	**0.00**	**168,952.51**		**3.93**	**3.09**	**169,990.95**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

	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	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	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**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Arena	0.00	0.00	0.00		
Automobile Care Center	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Place of Worship	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
University/College (4Yr)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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
Apartments Low Rise	0.00	7.00	9.50	40.20	19.20	40.60
Arena	8.90	13.30	7.40	0.00	81.00	19.00
Automobile Care Center	8.90	13.30	7.40	33.00	48.00	19.00
City Park	8.90	13.30	7.40	33.00	48.00	19.00
Condo/Townhouse	0.00	7.00	9.50	40.20	19.20	40.60
Day-Care Center	8.90	13.30	7.40	12.70	82.30	5.00
Elementary School	8.90	13.30	7.40	65.00	30.00	5.00
Golf Course	8.90	13.30	7.40	33.00	48.00	19.00
Office Park	8.90	13.30	7.40	33.00	48.00	19.00
Place of Worship	8.90	13.30	7.40	0.00	95.00	5.00
Research & Development	8.90	13.30	7.40	33.00	48.00	19.00
Single Family Housing	0.00	7.00	9.50	40.20	19.20	40.60
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00

	Miles			Trip %		
Land Use	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
University/College (4Yr)	8.90	13.30	7.40	6.40	88.60	5.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	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	6.98	61.07	36.04	0.38		0.00	4.82		0.00	4.82		76,099.00		1.46	1.40	76,562.13
NaturalGas Unmitigated	7.92	69.31	40.71	0.43		0.00	5.47		0.00	5.47		86,411.92		1.66	1.58	86,937.80
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					
Apartments Low Rise	28059.4	0.30	2.59	1.10	0.02		0.00	0.21		0.00	0.21		3,301.10		0.06	0.06	3,321.19
Arena	41975.7	0.45	4.12	3.46	0.02		0.00	0.31		0.00	0.31		4,938.31		0.09	0.09	4,968.37
Automobile Care Center	6047.34	0.07	0.59	0.50	0.00		0.00	0.05		0.00	0.05		711.45		0.01	0.01	715.78
City Park	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
Condo/Townhouse	112944	1.22	10.41	4.43	0.07		0.00	0.84		0.00	0.84		13,287.56		0.25	0.24	13,368.42
Day-Care Center	374	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00		44.00		0.00	0.00	44.27
Elementary School	5685.03	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04		668.83		0.01	0.01	672.90
Golf Course	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
Office Park	2451.37	0.03	0.24	0.20	0.00		0.00	0.02		0.00	0.02		288.40		0.01	0.01	290.15
Place of Worship	1482.19	0.02	0.15	0.12	0.00		0.00	0.01		0.00	0.01		174.38		0.00	0.00	175.44
Research & Development	154148	1.66	15.11	12.69	0.09		0.00	1.15		0.00	1.15		18,135.05		0.35	0.33	18,245.42
Single Family Housing	317546	3.42	29.26	12.45	0.19		0.00	2.37		0.00	2.37		37,358.33		0.72	0.68	37,585.69
Strip Mall	1965.75	0.02	0.19	0.16	0.00		0.00	0.01		0.00	0.01		231.27		0.00	0.00	232.67
University/College (4Yr)	61822.5	0.67	6.06	5.09	0.04		0.00	0.46		0.00	0.46		7,273.24		0.14	0.13	7,317.50
Total		**7.92**	**69.32**	**40.70**	**0.43**		**0.00**	**5.47**		**0.00**	**5.47**		**86,411.92**		**1.64**	**1.56**	**86,937.80**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Low Rise	24.4673	0.26	2.25	0.96	0.01		0.00	0.18		0.00	0.18		2,878.50		0.06	0.05	2,896.02
Arena	37.6753	0.41	3.69	3.10	0.02		0.00	0.28		0.00	0.28		4,432.39		0.08	0.08	4,459.36
Automobile Care Center	5.4278	0.06	0.53	0.45	0.00		0.00	0.04		0.00	0.04		638.56		0.01	0.01	642.45
City Park	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
Condo/Townhouse	98.2401	1.06	9.05	3.85	0.06		0.00	0.73		0.00	0.73		11,557.65		0.22	0.21	11,627.99
Day-Care Center	0.322556	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		37.95		0.00	0.00	38.18
Elementary School	4.90305	0.05	0.48	0.40	0.00		0.00	0.04		0.00	0.04		576.83		0.01	0.01	580.34
Golf Course	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
Office Park	2.10616	0.02	0.21	0.17	0.00		0.00	0.02		0.00	0.02		247.78		0.00	0.00	249.29
Place of Worship	1.33034	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01		156.51		0.00	0.00	157.46
Research & Development	138.356	1.49	13.56	11.39	0.08		0.00	1.03		0.00	1.03		16,277.13		0.31	0.30	16,376.19
Single Family Housing	276.596	2.98	25.49	10.85	0.16		0.00	2.06		0.00	2.06		32,540.70		0.62	0.60	32,738.74
Strip Mall	1.82192	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01		214.34		0.00	0.00	215.65
University/College (4Yr)	55.5955	0.60	5.45	4.58	0.03		0.00	0.41		0.00	0.41		6,540.64		0.13	0.12	6,580.45
Total		**6.96**	**61.05**	**36.04**	**0.36**		**0.00**	**4.81**		**0.00**	**4.81**		**76,098.98**		**1.44**	**1.38**	**76,562.12**

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	318.88	4.68	407.83	0.02		0.00	8.09		0.00	8.03	0.00	92,853.51		2.47	1.69	93,428.82
Unmitigated	318.88	4.68	407.83	0.02		0.00	8.09		0.00	8.03	0.00	92,853.51		2.47	1.69	93,428.82
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	49.82					0.00	0.00		0.00	0.00						0.00
Consumer Products	248.45					0.00	0.00		0.00	0.00						0.00
Hearth	8.44	0.00	0.46	0.00		0.00	5.83		0.00	5.77	0.00	92,117.65		1.77	1.69	92,678.26
Landscaping	12.18	4.68	407.37	0.02		0.00	2.26		0.00	2.26		735.86		0.70		750.56
Total	**318.89**	**4.68**	**407.83**	**0.02**		**0.00**	**8.09**		**0.00**	**8.03**	**0.00**	**92,853.51**		**2.47**	**1.69**	**93,428.82**

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	49.82					0.00	0.00		0.00	0.00						0.00
Consumer Products	248.45					0.00	0.00		0.00	0.00						0.00
Hearth	8.44	0.00	0.46	0.00		0.00	5.83		0.00	5.77	0.00	92,117.65		1.77	1.69	92,678.26
Landscaping	12.18	4.68	407.37	0.02		0.00	2.26		0.00	2.26		735.86		0.70		750.56
Total	**318.89**	**4.68**	**407.83**	**0.02**		**0.00**	**8.09**		**0.00**	**8.03**	**0.00**	**92,853.51**		**2.47**	**1.69**	**93,428.82**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen 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

Heritage Fields 2012 Modified Project

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	1282.2	1000sqft
Research & Development	3364	1000sqft
Day-Care Center	11	1000sqft
Elementary School	2000	Student
High School	2600	Student
Place of Worship	25	1000sqft
City Park	100	Acre
Apartments Low Rise	1056	Dwelling Unit
Condo/Townhouse	5086	Dwelling Unit
Single Family Housing	3358	Dwelling Unit
Strip Mall	220	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)** 30

1.3 User Entered Comments

Project Characteristics - The Utility CO2 has been modified to 488 lb/MWhr to reflect the RPS of 33% based on SCE's 2007 PUP Report of 631 lb/MWhr and 13% Renewable Portfolio.

Land Use - Land Use - Unit Amount from Traffic Report. Lot Acreage provided by Heritage Fields

Construction Phase - Placeholder

Off-road Equipment -

Vehicle Trips - Traffic Data Calculated seperately.

Woodstoves - Condo/Townhouse and Single Family Housing have Natural Gas Hearth, Apartments don't have fireplace

Energy Use - Utility CO2 has been modified to 488 lb/MWhr

Water And Wastewater - No water, it is done in a seperate run

Solid Waste - 100% Landfill Capture Gas Flare

Sequestration -

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	79.56	1.66	144.22	0.01		0.00	1.22		0.00	1.22	0.00	6,319.46	6,319.46	0.34	0.11	6,361.20
Energy	2.09	18.15	9.66	0.11		0.00	1.44		0.00	1.44	0.00	44,311.17	44,311.17	1.80	0.91	44,631.62
Mobile	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
Waste						0.00	0.00		0.00	0.00	1,961.79	0.00	1,961.79	97.28	0.00	4,004.64
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**81.65**	**19.81**	**153.88**	**0.12**	**0.00**	**0.00**	**2.66**	**0.00**	**0.00**	**2.66**	**1,961.79**	**50,630.63**	**52,592.42**	**99.42**	**1.02**	**54,997.46**

2.2 Overall Operational

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	79.56	1.66	144.22	0.01		0.00	1.22		0.00	1.22	0.00	6,319.46	6,319.46	0.34	0.11	6,361.20
Energy	1.83	15.89	8.49	0.10		0.00	1.26		0.00	1.26	0.00	41,045.60	41,045.60	1.71	0.85	41,344.71
Mobile	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
Waste						0.00	0.00		0.00	0.00	1,961.79	0.00	1,961.79	97.28	0.00	4,004.64
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**81.39**	**17.55**	**152.71**	**0.11**	**0.00**	**0.00**	**2.48**	**0.00**	**0.00**	**2.48**	**1,961.79**	**47,365.06**	**49,326.85**	**99.33**	**0.96**	**51,710.55**

2.3 Vegetation

Vegetation

	ROG	NOx	CO	SO2	CO2e
Category	tons				MT
New Trees					28,560.72
Vegetation Land Change					0.00
Total					**28,560.72**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

	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	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
Unmitigated	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Place of Worship	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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
Apartments Low Rise	12.70	7.00	9.50	40.20	19.20	40.60
City Park	8.90	13.30	7.40	33.00	48.00	19.00
Condo/Townhouse	12.70	7.00	9.50	40.20	19.20	40.60
Day-Care Center	8.90	13.30	7.40	12.70	82.30	5.00
Elementary School	8.90	13.30	7.40	65.00	30.00	5.00
High School	8.90	13.30	7.40	77.80	17.20	5.00
Office Park	8.90	13.30	7.40	33.00	48.00	19.00
Place of Worship	8.90	13.30	7.40	0.00	95.00	5.00
Research & Development	8.90	13.30	7.40	33.00	48.00	19.00
Single Family Housing	12.70	7.00	9.50	40.20	19.20	40.60
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	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 Mitigated						0.00	0.00		0.00	0.00	0.00	22,936.71	22,936.71	1.36	0.52	23,125.61
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	23,618.68	23,618.68	1.40	0.53	23,813.20
NaturalGas Mitigated	1.83	15.89	8.49	0.10		0.00	1.26		0.00	1.26	0.00	18,108.89	18,108.89	0.35	0.33	18,219.10
NaturalGas Unmitigated	2.09	18.15	9.66	0.11		0.00	1.44		0.00	1.44	0.00	20,692.49	20,692.49	0.40	0.38	20,818.42
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					
Apartments Low Rise	1.98809e+007	0.11	0.92	0.39	0.01		0.00	0.07		0.00	0.07	0.00	1,060.92	1,060.92	0.02	0.02	1,067.38
City Park	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
Condo/Townhouse	1.3031e+008	0.70	6.00	2.56	0.04		0.00	0.49		0.00	0.49	0.00	6,953.83	6,953.83	0.13	0.13	6,996.15
Day-Care Center	136510	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	7.28	7.28	0.00	0.00	7.33
Elementary School	2.07504e+006	0.01	0.10	0.09	0.00		0.00	0.01		0.00	0.01	0.00	110.73	110.73	0.00	0.00	111.41
High School	4.28044e+006	0.02	0.21	0.18	0.00		0.00	0.02		0.00	0.02	0.00	228.42	228.42	0.00	0.00	229.81
Office Park	1.52966e+007	0.08	0.75	0.63	0.00		0.00	0.06		0.00	0.06	0.00	816.29	816.29	0.02	0.01	821.26
Place of Worship	541000	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	28.87	28.87	0.00	0.00	29.05
Research & Development	7.2797e+007	0.39	3.57	3.00	0.02		0.00	0.27		0.00	0.27	0.00	3,884.72	3,884.72	0.07	0.07	3,908.36
Single Family Housing	1.41994e+008	0.77	6.54	2.78	0.04		0.00	0.53		0.00	0.53	0.00	7,577.36	7,577.36	0.15	0.14	7,623.47
Strip Mall	451000	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	24.07	24.07	0.00	0.00	24.21
Total		**2.08**	**18.15**	**9.68**	**0.11**		**0.00**	**1.45**		**0.00**	**1.45**	**0.00**	**20,692.49**	**20,692.49**	**0.39**	**0.37**	**20,818.43**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Low Rise	1.73358e+007	0.09	0.80	0.34	0.01		0.00	0.06		0.00	0.06	0.00	925.10	925.10	0.02	0.02	930.73
City Park	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
Condo/Townhouse	1.13345e+008	0.61	5.22	2.22	0.03		0.00	0.42		0.00	0.42	0.00	6,048.51	6,048.51	0.12	0.11	6,085.32
Day-Care Center	117733	0.00	0.01	0.00	0.00		0.00	0.00		0.00	0.00	0.00	6.28	6.28	0.00	0.00	6.32
Elementary School	1.78961e+006	0.01	0.09	0.07	0.00		0.00	0.01		0.00	0.01	0.00	95.50	95.50	0.00	0.00	96.08
High School	3.69166e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	197.00	197.00	0.00	0.00	198.20
Office Park	1.31426e+007	0.07	0.64	0.54	0.00		0.00	0.05		0.00	0.05	0.00	701.34	701.34	0.01	0.01	705.60
Place of Worship	485575	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	25.91	25.91	0.00	0.00	26.07
Research & Development	6.5339e+007	0.35	3.20	2.69	0.02		0.00	0.24		0.00	0.24	0.00	3,486.74	3,486.74	0.07	0.06	3,507.96
Single Family Housing	1.23683e+008	0.67	5.70	2.43	0.04		0.00	0.46		0.00	0.46	0.00	6,600.20	6,600.20	0.13	0.12	6,640.37
Strip Mall	418000	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	22.31	22.31	0.00	0.00	22.44
Total		**1.82**	**15.88**	**8.48**	**0.10**		**0.00**	**1.25**		**0.00**	**1.25**	**0.00**	**18,108.89**	**18,108.89**	**0.35**	**0.32**	**18,219.09**

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			
Apartments Low Rise	3.7378e+006					827.37	0.05	0.02	834.19
City Park	0					0.00	0.00	0.00	0.00
Condo/Townhouse	2.15326e+007					4,766.32	0.28	0.11	4,805.57
Day-Care Center	76010					16.83	0.00	0.00	16.96
Elementary School	1.1554e+006					255.75	0.02	0.01	257.86
High School	2.38339e+006					527.57	0.03	0.01	531.91
Office Park	2.20154e+007					4,873.17	0.29	0.11	4,913.30
Place of Worship	231000					51.13	0.00	0.00	51.55
Research & Development	3.10834e+007					6,880.40	0.41	0.16	6,937.06
Single Family Housing	2.16704e+007					4,796.81	0.29	0.11	4,836.32
Strip Mall	2.816e+006					623.33	0.04	0.01	628.46
Total						**23,618.68**	**1.41**	**0.54**	**23,813.18**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	3.69596e+006					818.11	0.05	0.02	824.85
City Park	0					0.00	0.00	0.00	0.00
Condo/Townhouse	2.13232e+007					4,719.96	0.28	0.11	4,758.83
Day-Care Center	72198.5					15.98	0.00	0.00	16.11
Elementary School	1.09746e+006					242.93	0.01	0.01	244.93
High School	2.26387e+006					501.12	0.03	0.01	505.24
Office Park	2.07479e+007					4,592.62	0.27	0.10	4,630.44
Place of Worship	223538					49.48	0.00	0.00	49.89
Research & Development	3.00792e+007					6,658.12	0.40	0.15	6,712.96
Single Family Housing	2.14192e+007					4,741.21	0.28	0.11	4,780.26
Strip Mall	2.69786e+006					597.18	0.04	0.01	602.10
Total						**22,936.71**	**1.36**	**0.52**	**23,125.61**

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	79.56	1.66	144.22	0.01		0.00	1.22		0.00	1.22	0.00	6,319.46	6,319.46	0.34	0.11	6,361.20
Unmitigated	79.56	1.66	144.22	0.01		0.00	1.22		0.00	1.22	0.00	6,319.46	6,319.46	0.34	0.11	6,361.20
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	11.03					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63.60					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.61	0.00	0.03	0.00		0.00	0.42		0.00	0.42	0.00	6,083.15	6,083.15	0.12	0.11	6,120.18
Landscaping	4.31	1.66	144.19	0.01		0.00	0.80		0.00	0.80	0.00	236.30	236.30	0.22	0.00	241.02
Total	**79.55**	**1.66**	**144.22**	**0.01**		**0.00**	**1.22**		**0.00**	**1.22**	**0.00**	**6,319.45**	**6,319.45**	**0.34**	**0.11**	**6,361.20**

6.2 Area by SubCategory

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	11.03					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	63.60					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.61	0.00	0.03	0.00		0.00	0.42		0.00	0.42	0.00	6,083.15	6,083.15	0.12	0.11	6,120.18
Landscaping	4.31	1.66	144.19	0.01		0.00	0.80		0.00	0.80	0.00	236.30	236.30	0.22	0.00	241.02
Total	**79.55**	**1.66**	**144.22**	**0.01**		**0.00**	**1.22**		**0.00**	**1.22**	**0.00**	**6,319.45**	**6,319.45**	**0.34**	**0.11**	**6,361.20**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen 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					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
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			
Apartments Low Rise	0 / 0					0.00	0.00	0.00	0.00
City Park	0 / 0					0.00	0.00	0.00	0.00
Condo/Townhouse	0 / 0					0.00	0.00	0.00	0.00
Day-Care Center	0 / 0					0.00	0.00	0.00	0.00
Elementary School	0 / 0					0.00	0.00	0.00	0.00
High School	0 / 0					0.00	0.00	0.00	0.00
Office Park	0 / 0					0.00	0.00	0.00	0.00
Place of Worship	0 / 0					0.00	0.00	0.00	0.00
Research & Development	0 / 0					0.00	0.00	0.00	0.00
Single Family Housing	0 / 0					0.00	0.00	0.00	0.00
Strip Mall	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	0 / 0					0.00	0.00	0.00	0.00
City Park	0 / 0					0.00	0.00	0.00	0.00
Condo/Townhouse	0 / 0					0.00	0.00	0.00	0.00
Day-Care Center	0 / 0					0.00	0.00	0.00	0.00
Elementary School	0 / 0					0.00	0.00	0.00	0.00
High School	0 / 0					0.00	0.00	0.00	0.00
Office Park	0 / 0					0.00	0.00	0.00	0.00
Place of Worship	0 / 0					0.00	0.00	0.00	0.00
Research & Development	0 / 0					0.00	0.00	0.00	0.00
Single Family Housing	0 / 0					0.00	0.00	0.00	0.00
Strip Mall	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

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					1,961.79	97.28	0.00	4,004.64
Unmitigated					1,961.79	97.28	0.00	4,004.64
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			
Apartments Low Rise	485.76					100.87	5.00	0.00	205.92
City Park	8.6					1.79	0.09	0.00	3.65
Condo/Townhouse	2339.56					485.84	24.09	0.00	991.76
Day-Care Center	14.3					2.97	0.15	0.00	6.06
Elementary School	365					75.80	3.76	0.00	154.73
High School	474.5					98.54	4.89	0.00	201.14
Office Park	1192.45					247.63	12.28	0.00	505.49
Place of Worship	142.5					29.59	1.47	0.00	60.41
Research & Development	255.64					53.09	2.63	0.00	108.37
Single Family Housing	3937.64					817.70	40.55	0.00	1,669.20
Strip Mall	231					47.97	2.38	0.00	97.92
Total						**1,961.79**	**97.29**	**0.00**	**4,004.65**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	485.76					100.87	5.00	0.00	205.92
City Park	8.6					1.79	0.09	0.00	3.65
Condo/Townhouse	2339.56					485.84	24.09	0.00	991.76
Day-Care Center	14.3					2.97	0.15	0.00	6.06
Elementary School	365					75.80	3.76	0.00	154.73
High School	474.5					98.54	4.89	0.00	201.14
Office Park	1192.45					247.63	12.28	0.00	505.49
Place of Worship	142.5					29.59	1.47	0.00	60.41
Research & Development	255.64					53.09	2.63	0.00	108.37
Single Family Housing	3937.64					817.70	40.55	0.00	1,669.20
Strip Mall	231					47.97	2.38	0.00	97.92
Total						**1,961.79**	**97.29**	**0.00**	**4,004.65**

9.0 Vegetation

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons				MT			
Unmitigated					28,560.72	0.00	0.00	28,560.72
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

9.1 Vegetation Land Change

Vegetation Type

	Initial/Final	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	Acres	tons				MT			
Grassland	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

9.1 Net New Trees

Species Class

	Number of Trees	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		tons				MT			
Miscellaneous	40340					28,560.72	0.00	0.00	28,560.72
Total						**28,560.72**	**0.00**	**0.00**	**28,560.72**

Heritage Fields 2012 Modified Project

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	1282.2	1000sqft
Research & Development	3364	1000sqft
Day-Care Center	11	1000sqft
Elementary School	2000	Student
High School	2600	Student
Place of Worship	25	1000sqft
City Park	100	Acre
Apartments Low Rise	1056	Dwelling Unit
Condo/Townhouse	5086	Dwelling Unit
Single Family Housing	3358	Dwelling Unit
Strip Mall	220	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)** 30

1.3 User Entered Comments

Project Characteristics - The Utility CO2 has been modified to 488 lb/MWhr to reflect the RPS of 33% based on SCE's 2007 PUP Report of 631 lb/MWhr and 13% Renewable Portfolio.

Land Use - Land Use - Unit Amount from Traffic Report. Lot Acreage provided by Heritage Fields

Construction Phase - Placeholder

Off-road Equipment -

Vehicle Trips - Traffic Data Calculated seperately.

Woodstoves - Condo/Townhouse and Single Family Housing have Natural Gas Hearth, Apartments don't have fireplace

Energy Use - Utility CO2 has been modified to 488 lb/MWhr

Water And Wastewater - No water, it is done in a seperate run

Solid Waste - 100% Landfill Capture Gas Flare

Sequestration -

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	448.96	9.08	791.67	0.04		0.00	15.70		0.00	15.58	0.00	180,242.53		4.79	3.28	181,359.30
Energy	11.46	99.44	52.96	0.62		0.00	7.92		0.00	7.92		124,983.92		2.40	2.29	125,744.56
Mobile	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	**460.42**	**108.52**	**844.63**	**0.66**	**0.00**	**0.00**	**23.62**	**0.00**	**0.00**	**23.50**	**0.00**	**305,226.45**		**7.19**	**5.57**	**307,103.86**

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	448.96	9.08	791.67	0.04		0.00	15.70		0.00	15.58	0.00	180,242.53		4.79	3.28	181,359.30
Energy	10.03	87.05	46.50	0.55		0.00	6.93		0.00	6.93		109,378.84		2.10	2.01	110,044.50
Mobile	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	**458.99**	**96.13**	**838.17**	**0.59**	**0.00**	**0.00**	**22.63**	**0.00**	**0.00**	**22.51**	**0.00**	**289,621.37**		**6.89**	**5.29**	**291,403.80**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

	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	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	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**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Place of Worship	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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
Apartments Low Rise	12.70	7.00	9.50	40.20	19.20	40.60
City Park	8.90	13.30	7.40	33.00	48.00	19.00
Condo/Townhouse	12.70	7.00	9.50	40.20	19.20	40.60
Day-Care Center	8.90	13.30	7.40	12.70	82.30	5.00
Elementary School	8.90	13.30	7.40	65.00	30.00	5.00
High School	8.90	13.30	7.40	77.80	17.20	5.00
Office Park	8.90	13.30	7.40	33.00	48.00	19.00
Place of Worship	8.90	13.30	7.40	0.00	95.00	5.00
Research & Development	8.90	13.30	7.40	33.00	48.00	19.00
Single Family Housing	12.70	7.00	9.50	40.20	19.20	40.60
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	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	10.03	87.05	46.50	0.55		0.00	6.93		0.00	6.93		109,378.84		2.10	2.01	110,044.50
NaturalGas Unmitigated	11.46	99.44	52.96	0.62		0.00	7.92		0.00	7.92		124,983.92		2.40	2.29	125,744.56
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	lb/day										lb/day					
Apartments Low Rise	54468.2	0.59	5.02	2.14	0.03		0.00	0.41		0.00	0.41		6,408.03		0.12	0.12	6,447.02
City Park	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
Condo/Townhouse	357013	3.85	32.90	14.00	0.21		0.00	2.66		0.00	2.66		42,001.56		0.81	0.77	42,257.17
Day-Care Center	374	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00		44.00		0.00	0.00	44.27
Elementary School	5685.03	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04		668.83		0.01	0.01	672.90
High School	11727.2	0.13	1.15	0.97	0.01		0.00	0.09		0.00	0.09		1,379.67		0.03	0.03	1,388.07
Office Park	41908.6	0.45	4.11	3.45	0.02		0.00	0.31		0.00	0.31		4,930.43		0.09	0.09	4,960.43
Place of Worship	1482.19	0.02	0.15	0.12	0.00		0.00	0.01		0.00	0.01		174.38		0.00	0.00	175.44
Research & Development	199444	2.15	19.55	16.42	0.12		0.00	1.49		0.00	1.49		23,463.97		0.45	0.43	23,606.77
Single Family Housing	389025	4.20	35.85	15.26	0.23		0.00	2.90		0.00	2.90		45,767.71		0.88	0.84	46,046.24
Strip Mall	1235.62	0.01	0.12	0.10	0.00		0.00	0.01		0.00	0.01		145.37		0.00	0.00	146.25
Total		**11.46**	**99.45**	**52.96**	**0.62**		**0.00**	**7.92**		**0.00**	**7.92**		**124,983.95**		**2.39**	**2.29**	**125,744.56**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Low Rise	47.4953	0.51	4.38	1.86	0.03		0.00	0.35		0.00	0.35		5,587.68		0.11	0.10	5,621.68
City Park	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
Condo/Townhouse	310.534	3.35	28.62	12.18	0.18		0.00	2.31		0.00	2.31		36,533.39		0.70	0.67	36,755.73
Day-Care Center	0.322556	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		37.95		0.00	0.00	38.18
Elementary School	4.90305	0.05	0.48	0.40	0.00		0.00	0.04		0.00	0.04		576.83		0.01	0.01	580.34
High School	10.1141	0.11	0.99	0.83	0.01		0.00	0.08		0.00	0.08		1,189.90		0.02	0.02	1,197.14
Office Park	36.007	0.39	3.53	2.97	0.02		0.00	0.27		0.00	0.27		4,236.12		0.08	0.08	4,261.90
Place of Worship	1.33034	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01		156.51		0.00	0.00	157.46
Research & Development	179.011	1.93	17.55	14.74	0.11		0.00	1.33		0.00	1.33		21,060.10		0.40	0.39	21,188.27
Single Family Housing	338.858	3.65	31.23	13.29	0.20		0.00	2.52		0.00	2.52		39,865.63		0.76	0.73	40,108.24
Strip Mall	1.14521	0.01	0.11	0.09	0.00		0.00	0.01		0.00	0.01		134.73		0.00	0.00	135.55
Total		**10.01**	**87.05**	**46.50**	**0.55**		**0.00**	**6.92**		**0.00**	**6.92**		**109,378.84**		**2.08**	**2.00**	**110,044.49**

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	448.96	9.08	791.67	0.04		0.00	15.70		0.00	15.58	0.00	180,242.53		4.79	3.28	181,359.30
Unmitigated	448.96	9.08	791.67	0.04		0.00	15.70		0.00	15.58	0.00	180,242.53		4.79	3.28	181,359.30
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	60.44					0.00	0.00		0.00	0.00						0.00
Consumer Products	348.49					0.00	0.00		0.00	0.00						0.00
Hearth	16.39	0.00	0.89	0.00		0.00	11.32		0.00	11.21	0.00	178,814.12		3.43	3.28	179,902.35
Landscaping	23.63	9.08	790.78	0.04		0.00	4.38		0.00	4.38		1,428.41		1.36		1,456.95
Total	**448.95**	**9.08**	**791.67**	**0.04**		**0.00**	**15.70**		**0.00**	**15.59**	**0.00**	**180,242.53**		**4.79**	**3.28**	**181,359.30**

6.2 Area by SubCategory

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	60.44					0.00	0.00		0.00	0.00						0.00
Consumer Products	348.49					0.00	0.00		0.00	0.00						0.00
Hearth	16.39	0.00	0.89	0.00		0.00	11.32		0.00	11.21	0.00	178,814.12		3.43	3.28	179,902.35
Landscaping	23.63	9.08	790.78	0.04		0.00	4.38		0.00	4.38		1,428.41		1.36		1,456.95
Total	**448.95**	**9.08**	**791.67**	**0.04**		**0.00**	**15.70**		**0.00**	**15.59**	**0.00**	**180,242.53**		**4.79**	**3.28**	**181,359.30**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen 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

Heritage Fields 2012 Modified Project Optional Conversion

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	747.2	1000sqft
Research & Development	3364	1000sqft
Day-Care Center	11	1000sqft
Elementary School	2000	Student
High School	2600	Student
Place of Worship	25	1000sqft
City Park	100	Acre
Apartments Low Rise	1189	Dwelling Unit
Condo/Townhouse	5842	Dwelling Unit
Single Family Housing	3669	Dwelling Unit
Strip Mall	220	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)** 30

1.3 User Entered Comments

Project Characteristics - The Utility CO2 has been modified to 488 lb/MWhr to reflect the RPS of 33% based on SCE's 2007 PUP Report of 631 lb/MWhr and 13% Renewable Portfolio.

Land Use - Land Use - Unit Amount from Traffic Report. Lot Acreage provided by Heritage Fields

Construction Phase - Placeholder

Off-road Equipment -

Vehicle Trips - Traffic Data Calculated seperately.

Woodstoves - Condo/Townhouse and Single Family Housing have Natural Gas Hearth, Apartments don't have fireplace

Energy Use - Utility CO2 has been modified to 488 lb/MWhr

Water And Wastewater - No water, it is done in a seperate run

Solid Waste - 100% Landfill Capture Gas Flare

Sequestration -

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	83.43	1.87	162.44	0.01		0.00	1.38		0.00	1.37	0.00	7,117.98	7,117.98	0.38	0.13	7,165.00
Energy	2.25	19.45	10.09	0.12		0.00	1.55		0.00	1.55	0.00	45,063.21	45,063.21	1.78	0.92	45,386.57
Mobile	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
Waste						0.00	0.00		0.00	0.00	2,019.08	0.00	2,019.08	100.12	0.00	4,121.58
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**85.68**	**21.32**	**172.53**	**0.13**	**0.00**	**0.00**	**2.93**	**0.00**	**0.00**	**2.92**	**2,019.08**	**52,181.19**	**54,200.27**	**102.28**	**1.05**	**56,673.15**

2.2 Overall Operational

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	83.43	1.87	162.44	0.01		0.00	1.38		0.00	1.37	0.00	7,117.98	7,117.98	0.38	0.13	7,165.00
Energy	1.96	17.02	8.86	0.11		0.00	1.36		0.00	1.36	0.00	41,707.29	41,707.29	1.70	0.86	42,008.98
Mobile	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
Waste						0.00	0.00		0.00	0.00	2,019.08	0.00	2,019.08	100.12	0.00	4,121.58
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**85.39**	**18.89**	**171.30**	**0.12**	**0.00**	**0.00**	**2.74**	**0.00**	**0.00**	**2.73**	**2,019.08**	**48,825.27**	**50,844.35**	**102.20**	**0.99**	**53,295.56**

2.3 Vegetation

Vegetation

	ROG	NOx	CO	SO2	CO2e
Category	tons				MT
New Trees					28,560.72
Vegetation Land Change					0.00
Total					**28,560.72**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

	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	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
Unmitigated	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Place of Worship	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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
Apartments Low Rise	12.70	7.00	9.50	40.20	19.20	40.60
City Park	8.90	13.30	7.40	33.00	48.00	19.00
Condo/Townhouse	12.70	7.00	9.50	40.20	19.20	40.60
Day-Care Center	8.90	13.30	7.40	12.70	82.30	5.00
Elementary School	8.90	13.30	7.40	65.00	30.00	5.00
High School	8.90	13.30	7.40	77.80	17.20	5.00
Office Park	8.90	13.30	7.40	33.00	48.00	19.00
Place of Worship	8.90	13.30	7.40	0.00	95.00	5.00
Research & Development	8.90	13.30	7.40	33.00	48.00	19.00
Single Family Housing	12.70	7.00	9.50	40.20	19.20	40.60
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	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 Mitigated						0.00	0.00		0.00	0.00	0.00	22,264.17	22,264.17	1.32	0.50	22,447.53
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	22,842.28	22,842.28	1.36	0.51	23,030.41
NaturalGas Mitigated	1.96	17.02	8.86	0.11		0.00	1.36		0.00	1.36	0.00	19,443.12	19,443.12	0.37	0.36	19,561.45
NaturalGas Unmitigated	2.25	19.45	10.09	0.12		0.00	1.55		0.00	1.55	0.00	22,220.93	22,220.93	0.43	0.41	22,356.16
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					
Apartments Low Rise	2.23848e+007	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08	0.00	1,194.54	1,194.54	0.02	0.02	1,201.81
City Park	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
Condo/Townhouse	1.4968e+008	0.81	6.90	2.93	0.04		0.00	0.56		0.00	0.56	0.00	7,987.47	7,987.47	0.15	0.15	8,036.08
Day-Care Center	136510	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	7.28	7.28	0.00	0.00	7.33
Elementary School	2.07504e+006	0.01	0.10	0.09	0.00		0.00	0.01		0.00	0.01	0.00	110.73	110.73	0.00	0.00	111.41
High School	4.28044e+006	0.02	0.21	0.18	0.00		0.00	0.02		0.00	0.02	0.00	228.42	228.42	0.00	0.00	229.81
Office Park	8.9141e+006	0.05	0.44	0.37	0.00		0.00	0.03		0.00	0.03	0.00	475.69	475.69	0.01	0.01	478.59
Place of Worship	541000	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	28.87	28.87	0.00	0.00	29.05
Research & Development	7.2797e+007	0.39	3.57	3.00	0.02		0.00	0.27		0.00	0.27	0.00	3,884.72	3,884.72	0.07	0.07	3,908.36
Single Family Housing	1.55145e+008	0.84	7.15	3.04	0.05		0.00	0.58		0.00	0.58	0.00	8,279.13	8,279.13	0.16	0.15	8,329.52
Strip Mall	451000	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	24.07	24.07	0.00	0.00	24.21
Total		**2.24**	**19.46**	**10.10**	**0.12**		**0.00**	**1.55**		**0.00**	**1.55**	**0.00**	**22,220.92**	**22,220.92**	**0.41**	**0.40**	**22,356.17**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Low Rise	1.95192e+007	0.11	0.90	0.38	0.01		0.00	0.07		0.00	0.07	0.00	1,041.62	1,041.62	0.02	0.02	1,047.96
City Park	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
Condo/Townhouse	1.30193e+008	0.70	6.00	2.55	0.04		0.00	0.49		0.00	0.49	0.00	6,947.58	6,947.58	0.13	0.13	6,989.87
Day-Care Center	117733	0.00	0.01	0.00	0.00		0.00	0.00		0.00	0.00	0.00	6.28	6.28	0.00	0.00	6.32
Elementary School	1.78961e+006	0.01	0.09	0.07	0.00		0.00	0.01		0.00	0.01	0.00	95.50	95.50	0.00	0.00	96.08
High School	3.69166e+006	0.02	0.18	0.15	0.00		0.00	0.01		0.00	0.01	0.00	197.00	197.00	0.00	0.00	198.20
Office Park	7.6588e+006	0.04	0.38	0.32	0.00		0.00	0.03		0.00	0.03	0.00	408.70	408.70	0.01	0.01	411.19
Place of Worship	485575	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	25.91	25.91	0.00	0.00	26.07
Research & Development	6.5339e+007	0.35	3.20	2.69	0.02		0.00	0.24		0.00	0.24	0.00	3,486.74	3,486.74	0.07	0.06	3,507.96
Single Family Housing	1.35138e+008	0.73	6.23	2.65	0.04		0.00	0.50		0.00	0.50	0.00	7,211.48	7,211.48	0.14	0.13	7,255.36
Strip Mall	418000	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	22.31	22.31	0.00	0.00	22.44
Total		**1.96**	**17.03**	**8.85**	**0.11**		**0.00**	**1.35**		**0.00**	**1.35**	**0.00**	**19,443.12**	**19,443.12**	**0.37**	**0.35**	**19,561.45**

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			
Apartments Low Rise	4.20856e+006					931.58	0.06	0.02	939.25
City Park	0					0.00	0.00	0.00	0.00
Condo/Townhouse	2.47333e+007					5,474.80	0.33	0.12	5,519.89
Day-Care Center	76010					16.83	0.00	0.00	16.96
Elementary School	1.1554e+006					255.75	0.02	0.01	257.86
High School	2.38339e+006					527.57	0.03	0.01	531.91
Office Park	1.28294e+007					2,839.83	0.17	0.06	2,863.22
Place of Worship	231000					51.13	0.00	0.00	51.55
Research & Development	3.10834e+007					6,880.40	0.41	0.16	6,937.06
Single Family Housing	2.36774e+007					5,241.07	0.31	0.12	5,284.23
Strip Mall	2.816e+006					623.33	0.04	0.01	628.46
Total						**22,842.29**	**1.37**	**0.51**	**23,030.39**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	4.16145e+006					921.15	0.05	0.02	928.74
City Park	0					0.00	0.00	0.00	0.00
Condo/Townhouse	2.44928e+007					5,421.55	0.32	0.12	5,466.20
Day-Care Center	72198.5					15.98	0.00	0.00	16.11
Elementary School	1.09746e+006					242.93	0.01	0.01	244.93
High School	2.26387e+006					501.12	0.03	0.01	505.24
Office Park	1.20908e+007					2,676.34	0.16	0.06	2,698.38
Place of Worship	223538					49.48	0.00	0.00	49.89
Research & Development	3.00792e+007					6,658.12	0.40	0.15	6,712.96
Single Family Housing	2.3403e+007					5,180.32	0.31	0.12	5,222.98
Strip Mall	2.69786e+006					597.18	0.04	0.01	602.10
Total						**22,264.17**	**1.32**	**0.50**	**22,447.53**

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	83.43	1.87	162.44	0.01		0.00	1.38		0.00	1.37	0.00	7,117.98	7,117.98	0.38	0.13	7,165.00
Unmitigated	83.43	1.87	162.44	0.01		0.00	1.38		0.00	1.37	0.00	7,117.98	7,117.98	0.38	0.13	7,165.00
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	10.98					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66.90					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.69	0.00	0.04	0.00		0.00	0.48		0.00	0.47	0.00	6,851.83	6,851.83	0.13	0.13	6,893.53
Landscaping	4.85	1.87	162.40	0.01		0.00	0.90		0.00	0.90	0.00	266.15	266.15	0.25	0.00	271.47
Total	**83.42**	**1.87**	**162.44**	**0.01**		**0.00**	**1.38**		**0.00**	**1.37**	**0.00**	**7,117.98**	**7,117.98**	**0.38**	**0.13**	**7,165.00**

6.2 Area by SubCategory

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	10.98					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	66.90					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.69	0.00	0.04	0.00		0.00	0.48		0.00	0.47	0.00	6,851.83	6,851.83	0.13	0.13	6,893.53
Landscaping	4.85	1.87	162.40	0.01		0.00	0.90		0.00	0.90	0.00	266.15	266.15	0.25	0.00	271.47
Total	**83.42**	**1.87**	**162.44**	**0.01**		**0.00**	**1.38**		**0.00**	**1.37**	**0.00**	**7,117.98**	**7,117.98**	**0.38**	**0.13**	**7,165.00**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen 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					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
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			
Apartments Low Rise	0 / 0					0.00	0.00	0.00	0.00
City Park	0 / 0					0.00	0.00	0.00	0.00
Condo/Townhouse	0 / 0					0.00	0.00	0.00	0.00
Day-Care Center	0 / 0					0.00	0.00	0.00	0.00
Elementary School	0 / 0					0.00	0.00	0.00	0.00
High School	0 / 0					0.00	0.00	0.00	0.00
Office Park	0 / 0					0.00	0.00	0.00	0.00
Place of Worship	0 / 0					0.00	0.00	0.00	0.00
Research & Development	0 / 0					0.00	0.00	0.00	0.00
Single Family Housing	0 / 0					0.00	0.00	0.00	0.00
Strip Mall	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	0 / 0					0.00	0.00	0.00	0.00
City Park	0 / 0					0.00	0.00	0.00	0.00
Condo/Townhouse	0 / 0					0.00	0.00	0.00	0.00
Day-Care Center	0 / 0					0.00	0.00	0.00	0.00
Elementary School	0 / 0					0.00	0.00	0.00	0.00
High School	0 / 0					0.00	0.00	0.00	0.00
Office Park	0 / 0					0.00	0.00	0.00	0.00
Place of Worship	0 / 0					0.00	0.00	0.00	0.00
Research & Development	0 / 0					0.00	0.00	0.00	0.00
Single Family Housing	0 / 0					0.00	0.00	0.00	0.00
Strip Mall	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

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					2,019.08	100.12	0.00	4,121.58
Unmitigated					2,019.08	100.12	0.00	4,121.58
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			
Apartments Low Rise	546.94					113.58	5.63	0.00	231.85
City Park	8.6					1.79	0.09	0.00	3.65
Condo/Townhouse	2687.32					558.06	27.67	0.00	1,139.18
Day-Care Center	14.3					2.97	0.15	0.00	6.06
Elementary School	365					75.80	3.76	0.00	154.73
High School	474.5					98.54	4.89	0.00	201.14
Office Park	694.9					144.31	7.16	0.00	294.57
Place of Worship	142.5					29.59	1.47	0.00	60.41
Research & Development	255.64					53.09	2.63	0.00	108.37
Single Family Housing	4302.13					893.39	44.30	0.00	1,823.71
Strip Mall	231					47.97	2.38	0.00	97.92
Total						**2,019.09**	**100.13**	**0.00**	**4,121.59**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	546.94					113.58	5.63	0.00	231.85
City Park	8.6					1.79	0.09	0.00	3.65
Condo/Townhouse	2687.32					558.06	27.67	0.00	1,139.18
Day-Care Center	14.3					2.97	0.15	0.00	6.06
Elementary School	365					75.80	3.76	0.00	154.73
High School	474.5					98.54	4.89	0.00	201.14
Office Park	694.9					144.31	7.16	0.00	294.57
Place of Worship	142.5					29.59	1.47	0.00	60.41
Research & Development	255.64					53.09	2.63	0.00	108.37
Single Family Housing	4302.13					893.39	44.30	0.00	1,823.71
Strip Mall	231					47.97	2.38	0.00	97.92
Total						**2,019.09**	**100.13**	**0.00**	**4,121.59**

9.0 Vegetation

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons				MT			
Unmitigated					28,560.72	0.00	0.00	28,560.72
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

9.1 Vegetation Land Change

Vegetation Type

	Initial/Final	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	Acres	tons				MT			
Grassland	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

9.1 Net New Trees

Species Class

	Number of Trees	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		tons				MT			
Miscellaneous	40340					28,560.72	0.00	0.00	28,560.72
Total						**28,560.72**	**0.00**	**0.00**	**28,560.72**

Heritage Fields 2012 Modified Project :Optional Conversion

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	747.2	1000sqft
Research & Development	3364	1000sqft
Day-Care Center	11	1000sqft
Elementary School	2000	Student
High School	2600	Student
Place of Worship	25	1000sqft
City Park	100	Acre
Apartments Low Rise	1189	Dwelling Unit
Condo/Townhouse	5842	Dwelling Unit
Single Family Housing	3669	Dwelling Unit
Strip Mall	220	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)** 30

1.3 User Entered Comments

Project Characteristics - The Utility CO2 has been modified to 488 lb/MWhr to reflect the RPS of 33% based on SCE's 2007 PUP Report of 631 lb/MWhr and 13% Renewable Portfolio.

Land Use - Land Use - Unit Amount from Traffic Report. Lot Acreage provided by Heritage Fields

Construction Phase - Placeholder

Off-road Equipment -

Vehicle Trips - Traffic Data Calculated seperately.

Woodstoves - Condo/Townhouse and Single Family Housing have Natural Gas Hearth, Apartments don't have fireplace

Energy Use - Utility CO2 has been modified to 488 lb/MWhr

Water And Wastewater - No water, it is done in a seperate run

Solid Waste - 100% Landfill Capture Gas Flare

Sequestration -

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	471.82	10.23	891.67	0.05		0.00	17.69		0.00	17.55	0.00	203,018.26		5.39	3.69	204,276.14
Energy	12.30	106.57	55.28	0.67		0.00	8.50		0.00	8.50		134,215.78		2.57	2.46	135,032.59
Mobile	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	**484.12**	**116.80**	**946.95**	**0.72**	**0.00**	**0.00**	**26.19**	**0.00**	**0.00**	**26.05**	**0.00**	**337,234.04**		**7.96**	**6.15**	**339,308.73**

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	471.82	10.23	891.67	0.05		0.00	17.69		0.00	17.55	0.00	203,018.26		5.39	3.69	204,276.14
Energy	10.77	93.27	48.54	0.59		0.00	7.44		0.00	7.44		117,437.65		2.25	2.15	118,152.36
Mobile	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	**482.59**	**103.50**	**940.21**	**0.64**	**0.00**	**0.00**	**25.13**	**0.00**	**0.00**	**24.99**	**0.00**	**320,455.91**		**7.64**	**5.84**	**322,428.50**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

	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	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	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**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Place of Worship	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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
Apartments Low Rise	12.70	7.00	9.50	40.20	19.20	40.60
City Park	8.90	13.30	7.40	33.00	48.00	19.00
Condo/Townhouse	12.70	7.00	9.50	40.20	19.20	40.60
Day-Care Center	8.90	13.30	7.40	12.70	82.30	5.00
Elementary School	8.90	13.30	7.40	65.00	30.00	5.00
High School	8.90	13.30	7.40	77.80	17.20	5.00
Office Park	8.90	13.30	7.40	33.00	48.00	19.00
Place of Worship	8.90	13.30	7.40	0.00	95.00	5.00
Research & Development	8.90	13.30	7.40	33.00	48.00	19.00
Single Family Housing	12.70	7.00	9.50	40.20	19.20	40.60
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	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	10.77	93.27	48.54	0.59		0.00	7.44		0.00	7.44		117,437.65		2.25	2.15	118,152.36
NaturalGas Unmitigated	12.30	106.57	55.28	0.67		0.00	8.50		0.00	8.50		134,215.78		2.57	2.46	135,032.59
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					
Apartments Low Rise	61328.3	0.66	5.65	2.41	0.04		0.00	0.46		0.00	0.46		7,215.10		0.14	0.13	7,259.01
City Park	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
Condo/Townhouse	410081	4.42	37.79	16.08	0.24		0.00	3.06		0.00	3.06		48,244.81		0.92	0.88	48,538.42
Day-Care Center	374	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00		44.00		0.00	0.00	44.27
Elementary School	5685.03	0.06	0.56	0.47	0.00		0.00	0.04		0.00	0.04		668.83		0.01	0.01	672.90
High School	11727.2	0.13	1.15	0.97	0.01		0.00	0.09		0.00	0.09		1,379.67		0.03	0.03	1,388.07
Office Park	24422.2	0.26	2.39	2.01	0.01		0.00	0.18		0.00	0.18		2,873.20		0.06	0.05	2,890.68
Place of Worship	1482.19	0.02	0.15	0.12	0.00		0.00	0.01		0.00	0.01		174.38		0.00	0.00	175.44
Research & Development	199444	2.15	19.55	16.42	0.12		0.00	1.49		0.00	1.49		23,463.97		0.45	0.43	23,606.77
Single Family Housing	425055	4.58	39.17	16.67	0.25		0.00	3.17		0.00	3.17		50,006.47		0.96	0.92	50,310.80
Strip Mall	1235.62	0.01	0.12	0.10	0.00		0.00	0.01		0.00	0.01		145.37		0.00	0.00	146.25
Total		**12.29**	**106.57**	**55.28**	**0.67**		**0.00**	**8.51**		**0.00**	**8.51**		**134,215.80**		**2.57**	**2.45**	**135,032.61**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Low Rise	53.4772	0.58	4.93	2.10	0.03		0.00	0.40		0.00	0.40		6,291.43		0.12	0.12	6,329.72
City Park	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
Condo/Townhouse	356.693	3.85	32.87	13.99	0.21		0.00	2.66		0.00	2.66		41,963.84		0.80	0.77	42,219.23
Day-Care Center	0.322556	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		37.95		0.00	0.00	38.18
Elementary School	4.90305	0.05	0.48	0.40	0.00		0.00	0.04		0.00	0.04		576.83		0.01	0.01	580.34
High School	10.1141	0.11	0.99	0.83	0.01		0.00	0.08		0.00	0.08		1,189.90		0.02	0.02	1,197.14
Office Park	20.983	0.23	2.06	1.73	0.01		0.00	0.16		0.00	0.16		2,468.59		0.05	0.05	2,483.61
Place of Worship	1.33034	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01		156.51		0.00	0.00	157.46
Research & Development	179.011	1.93	17.55	14.74	0.11		0.00	1.33		0.00	1.33		21,060.10		0.40	0.39	21,188.27
Single Family Housing	370.241	3.99	34.12	14.52	0.22		0.00	2.76		0.00	2.76		43,557.77		0.83	0.80	43,822.85
Strip Mall	1.14521	0.01	0.11	0.09	0.00		0.00	0.01		0.00	0.01		134.73		0.00	0.00	135.55
Total		**10.76**	**93.27**	**48.54**	**0.59**		**0.00**	**7.45**		**0.00**	**7.45**		**117,437.65**		**2.23**	**2.16**	**118,152.35**

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	lb/day										lb/day					
Mitigated	471.82	10.23	891.67	0.05		0.00	17.69		0.00	17.55	0.00	203,018.26		5.39	3.69	204,276.14
Unmitigated	471.82	10.23	891.67	0.05		0.00	17.69		0.00	17.55	0.00	203,018.26		5.39	3.69	204,276.14
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	60.15					0.00	0.00		0.00	0.00						0.00
Consumer Products	366.59					0.00	0.00		0.00	0.00						0.00
Hearth	18.46	0.00	1.01	0.00		0.00	12.76		0.00	12.62	0.00	201,409.41		3.86	3.69	202,635.16
Landscaping	26.62	10.23	890.66	0.05		0.00	4.93		0.00	4.93		1,608.84		1.53		1,640.98
Total	**471.82**	**10.23**	**891.67**	**0.05**		**0.00**	**17.69**		**0.00**	**17.55**	**0.00**	**203,018.25**		**5.39**	**3.69**	**204,276.14**

6.2 Area by SubCategory

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	60.15					0.00	0.00		0.00	0.00						0.00
Consumer Products	366.59					0.00	0.00		0.00	0.00						0.00
Hearth	18.46	0.00	1.01	0.00		0.00	12.76		0.00	12.62	0.00	201,409.41		3.86	3.69	202,635.16
Landscaping	26.62	10.23	890.66	0.05		0.00	4.93		0.00	4.93		1,608.84		1.53		1,640.98
Total	**471.82**	**10.23**	**891.67**	**0.05**		**0.00**	**17.69**		**0.00**	**17.55**	**0.00**	**203,018.25**		**5.39**	**3.69**	**204,276.14**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen 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