

**Appendix A:
CalEEMod Output**

Diamond Oaks VTTM - Phase 1&2 Grading and Paving
Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	67	Dwelling Unit
Apartments Low Rise	84	Dwelling Unit
Condo/Townhouse	24	Dwelling Unit
Other Asphalt Surfaces	6.86	Acre
Other Non-Asphalt Surfaces	8.9	Acre

1.2 Other Project Characteristics

Urbanization	Urban	Utility Company	Southern California Edison
Climate Zone	3	Wind Speed (m/s)	2.2
		Precipitation Freq (Days)	51

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Based on site plan
- Construction Phase - based on estimated construction schedule
- Off-road Equipment - New ARB Load Factors
- Off-road Equipment - New ARB Load Factors
- Grading - Based on site plan. Assumes 1/3 of material from retention basin is exported.
- Vehicle Trips - Based on traffic study
- Vehicle Emission Factors - Based on residential fleet mix
- Vehicle Emission Factors -
- Vehicle Emission Factors -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2014											0.00	407.27	407.27	0.02	0.00	407.75
Total											0.00	407.27	407.27	0.02	0.00	407.75

Mitigated Construction

Year	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2014											0.00	407.27	407.27	0.02	0.00	407.75
Total											0.00	407.27	407.27	0.02	0.00	407.75

2.2 Overall Operational

Unmitigated Operational

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Area											74.14	229.68	303.72	0.35	0.00	312.43
Energy											0.00	502.92	502.92	0.02	0.01	506.03
Mobile											0.00	1,432.50	1,432.50	0.07	0.00	1,434.06
Waste											24.12	0.00	24.12	1.43	0.00	54.04
Water											0.00	25.39	25.39	0.35	0.01	36.53
Total											88.26	2,190.39	2,288.65	2.22	0.02	2,342.09

Mitigated Operational

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										M/yr						
Area											74.14	229.68	303.72	0.35	0.00	0.00	312.43
Energy											0.00	502.92	502.92	0.02	0.01	0.01	505.03
Mobile											0.00	1,432.50	1,432.50	0.07	0.00	0.00	1,434.06
Waste											24.12	0.00	24.12	1.43	0.00	0.00	54.04
Water											0.00	25.39	25.39	0.35	0.01	0.01	35.53
Total											98.26	2,190.39	2,288.65	2.22	0.02	0.02	2,342.09

3.0 Construction Detail
3.1 Mitigation Measures Construction

3.2 Grading - 2014

Unmitigated Construction On-Site

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										M/yr						
Fugitive Dust											0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	148.39	148.39	0.01	0.00	0.00	148.68
Total											0.00	148.39	148.39	0.01	0.00	0.00	148.68

Unmitigated Construction Off-Site

Category	ton/yr										M1/yr				CO2e	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4		N2O
Hauling											0.00	226.64	226.64	0.00	0.00	226.74
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	3.54	3.54	0.00	0.00	3.55
Total											0.00	230.18	230.18	0.00	0.00	230.29

Mitigated Construction On-Site

Category	ton/yr										M1/yr				CO2e	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4		N2O
Fugitive Dust											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	148.39	148.39	0.01	0.00	148.68
Total											0.00	148.39	148.39	0.01	0.00	148.68

Mitigated Construction Off-Site

Category	ton/yr										M1/yr				CO2e	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4		N2O
Hauling											0.00	226.64	226.64	0.00	0.00	226.74
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	3.54	3.54	0.00	0.00	3.55
Total											0.00	230.18	230.18	0.00	0.00	230.29

3.3 Paving - 2014

Unmitigated Construction On-Site

Category	tons/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road											0.00	26.92	26.92	0.00	0.00	27.02
Paving											0.00	0.00	0.00	0.00	0.00	0.00
Total											0.00	26.92	26.92	0.00	0.00	27.02

Unmitigated Construction Off-Site

Category	tms/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling											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
Wentse											0.00	1.77	1.77	0.00	0.00	1.77
Total											0.00	1.77	1.77	0.00	0.00	1.77

Mitigated Construction On-Site

Category	tms/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road											0.00	26.92	26.92	0.00	0.00	27.02
Paving											0.00	0.00	0.00	0.00	0.00	0.00
Total											0.00	26.92	26.92	0.00	0.00	27.02

Mitigated Construction Off-Site

Category	toms/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling											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
Worker											0.00	1.77	1.77	0.00	0.00	1.77
Total											0.00	1.77	1.77	0.00	0.00	1.77

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Category	toms/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Mitigated											0.00	1,432.50	1,432.50	0.07	0.00	1,434.06
Unmitigated											0.00	1,432.50	1,432.50	0.07	0.00	1,434.06
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	Annual VMT	Annual VMT
Apartments Low Rise	553.56	601.44	509.88	1,562,030	1,562,030	1,562,030	1,562,030
Condo/Townhouse	158.16	171.84	145.68	446,294	446,294	446,294	446,294
Single Family Housing	641.19	675.36	587.59	1,799,520	1,799,520	1,799,520	1,799,520
Other Asphalt Surfaces	0.00	0.00	0.00				
Other Non-Asphalt Surfaces	0.00	0.00	0.00				
Total	1,352.91	1,448.64	1,243.15	3,807,844	3,807,844	3,807,844	3,807,844

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
Apartments Low Rise	10.80	7.30	7.60	38.40	22.60	39.00
Condo/Townhouse	10.80	7.30	7.60	38.40	22.60	39.00
Single Family Housing	10.80	7.30	7.60	38.40	22.60	39.00
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00

Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00
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5.0 Energy Detail

5.1 Mitigation Measures Energy

Category	tons/yr											M/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Electricity Mitigated											0.00	264.20	264.20	0.01	0.00	265.66
Electricity Unmitigated											0.00	264.20	264.20	0.01	0.00	265.66
Natural Gas Mitigated											0.00	238.71	238.71	0.00	0.00	240.17
Natural Gas Unmitigated											0.00	238.71	238.71	0.00	0.00	240.17
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use	kBTU	tons/yr											M/yr					
		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																		
Apartments Low Rise	1.56221e+006											0.00	83.37	83.37	0.00	0.00	0.00	83.87
Condo/Townhouse	521692											0.00	27.84	27.84	0.00	0.00	0.00	28.01
Other Asphalt Surfaces	0											0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0											0.00	0.00	0.00	0.00	0.00	0.00	0.00
Single Family Houses	2.38945e+006											0.00	127.51	127.51	0.00	0.00	0.00	128.29
Total												0.00	238.72	238.72	0.00	0.00	0.00	240.17

Mitigated

Land Use	kBTU	tons/yr											M/yr					
		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																		
Apartments Low Rise	1.56221e+006											0.00	83.37	83.37	0.00	0.00	0.00	83.87
Condo/Townhouse	521692											0.00	27.84	27.84	0.00	0.00	0.00	28.01
Other Asphalt Surfaces	0											0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0											0.00	0.00	0.00	0.00	0.00	0.00	0.00
Single Family Housing	2.38945e+006											0.00	127.51	127.51	0.00	0.00	0.00	128.29
Total												0.00	238.72	238.72	0.00	0.00	0.00	240.17

6.2 Area by SubCategory

Unmitigated

SubCategory	tons/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											74.14	227.43	301.59	0.35	0.00	310.24
Landscaping											0.00	2.15	2.15	0.00	0.00	2.19
Total											74.14	229.58	303.73	0.35	0.00	312.43

Mitigated

SubCategory	tons/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											74.14	227.43	301.59	0.35	0.00	310.24
Landscaping											0.00	2.15	2.15	0.00	0.00	2.19
Total											74.14	229.58	303.73	0.35	0.00	312.43

7.0 Water Detail

7.1 Mitigation Measures Water

Category	tons/yr										M/yr				
	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e							
Mitigated					25.39	0.35	0.01	35.53							
Unmitigated					25.39	0.35	0.01	35.53							
Total	NA	NA	NA	NA	NA	NA	NA	NA							

7.2 Water by Land Use

Unmitigated

Land Use	Indoor/Outdoor Use										Total				
	Mgal	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
Apartments Low Rise	5.47294 / 3.45033					12.19	0.17	0.00	17.06						
Condo/Townhouse	1.5637 / 0.995609					3.48	0.05	0.00	4.87						
Other Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00						
Other Non-Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00						
Single Family Housing	4.36532 / 2.75205					9.72	0.13	0.00	13.60						
Total						25.39	0.35	0.00	35.53						

Mitigated

Land Use	Indoor/Outdoor Use										Total				
	Mgal	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
Apartments Low Rise	5.47294 / 3.45033					12.19	0.17	0.00	17.06						
Condo/Townhouse	1.5637 / 0.995609					3.48	0.05	0.00	4.87						
Other Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00						
Other Non-Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00						
Single Family Housing	4.36532 / 2.75205					9.72	0.13	0.00	13.60						
Total						25.39	0.35	0.00	35.53						

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

Category	Indoor/Outdoor Use										Total				
	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
Mitigated					24.12	1.43	0.00	54.04							
Unmitigated					24.12	1.43	0.00	54.04							
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

Land Use	Waste Disposed tons	M/yr									
		ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e		
Apartments Low Rise	38.64					7.84	0.46	0.00		17.58	
Condo/Townhouse	11.04					2.24	0.13	0.00		5.02	
Other Asphalt Surfaces	0					0.00	0.00	0.00		0.00	
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00		0.00	
Single Family Housing	69.12					14.03	0.83	0.00		31.44	
Total						24.11	1.42	0.00		54.04	

Mitigated

Land Use	Waste Disposed tons	M/yr									
		ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e		
Apartments Low Rise	38.64					7.84	0.46	0.00		17.58	
Condo/Townhouse	11.04					2.24	0.13	0.00		5.02	
Other Asphalt Surfaces	0					0.00	0.00	0.00		0.00	
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00		0.00	
Single Family Housing	69.12					14.03	0.83	0.00		31.44	
Total						24.11	1.42	0.00		54.04	

9.0 Vegetation

Diamond Oaks VTTM - Phase 1
Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments Low Rise	84	Dwelling Unit
Condo/Townhouse	24	Dwelling Unit
Single Family Housing	32	Dwelling Unit
Other Non-Asphalt Surfaces	5.93	Acre

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	3	Precipitation Freq (Days)	51		

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Based on site plan
- Construction Phase - Based on estimated construction schedule
- Off-road Equipment - New ARB OFFROAD Load Factors
- Off-road Equipment -
- Vehicle Trips - Based on Traffic Impact Study
- Vehicle Emission Factors - VRPA Residential Fleet Mix
- Vehicle Emission Factors -
- Vehicle Emission Factors -
- Mobile Land Use Mitigation -
- Area Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Waste Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	toms/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2014											0.00	251.82	251.82	0.02	0.00	252.31
2015											0.00	6.69	6.69	0.00	0.00	6.70
Total											0.00	258.51	258.51	0.02	0.00	259.01

Mitigated Construction

Year	toms/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2014											0.00	251.82	251.82	0.02	0.00	252.31
2015											0.00	6.69	6.69	0.00	0.00	6.70
Total											0.00	258.51	258.51	0.02	0.00	259.01

2.2 Overall Operational

Unmitigated Operational

Category	toms/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Area											0.00	183.66	183.66	0.01	0.00	184.81
Energy											0.00	363.57	363.57	0.01	0.01	365.81
Mobile											0.00	1,167.84	1,167.84	0.06	0.00	1,169.11
Waste											16.81	0.00	16.81	0.99	0.00	37.67
Water											0.00	20.31	20.31	0.28	0.01	28.43
Total											16.81	1,735.38	1,752.19	1.35	0.02	1,755.83

Mitigated Operational

Category	lbs/yr										M/yr				CO2e	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4		N2O
Area											0.00	183.65	183.65	0.01	0.00	184.79
Energy											0.00	320.18	320.18	0.01	0.01	322.16
Mobile											0.00	1,089.50	1,089.50	0.06	0.00	1,090.70
Waste											8.40	0.00	8.40	0.50	0.00	18.83
Water											0.00	16.84	16.84	0.22	0.01	23.33
Total											8.40	1,610.17	1,618.57	0.80	0.02	1,635.81

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Building Construction - 2014

Unmitigated Construction On-Site

Category	lbs/yr										M/yr				CO2e	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4		N2O
Off-Road											0.00	178.55	178.55	0.02	0.00	178.97
Total											0.00	178.55	178.55	0.02	0.00	178.97

Unmitigated Construction Off-Site

Category	lbs/yr										M/yr				CO2e	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4		N2O
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	24.85	24.85	0.00	0.00	24.87
Worker											0.00	46.23	46.23	0.00	0.00	46.29
Total											0.00	71.08	71.08	0.00	0.00	71.16

5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use	Natural Gas Use kBtu	tons/yr											MT/yr					
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	Net-CO2	Total CO2	CH4	N2O	CO2e	
Apartments Low Rise	1,562,216																	
Condo/Townhouse	521,692																	
Other Non-Asphalt Surfaces	0																	
Single Family Housing	1,141,236																	
Total																		

Mitigated

Land Use	Natural Gas Use kBtu	tons/yr											MT/yr					
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	Net-CO2	Total CO2	CH4	N2O	CO2e	
Apartments Low Rise	1,228,536																	
Condo/Townhouse	411,555																	
Other Non-Asphalt Surfaces	0																	
Single Family Housing	503,837																	
Total																		

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use kWh	tons/yr											MT/yr				
		ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e								
Apartments Low Rise	322,582					83.83	0.00	0.00									
Condo/Townhouse	1,070,133					31.13	0.00	0.00									
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00									
Single Family Housing	2,286,444					66.51	0.00	0.00									
Total						181.47	0.00	0.00									

Mitigated

Land Use	Electricity Use kWh	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		tons/yr							
Apartments Low Rise	310720					90.38	0.00	0.00	90.95
Condo/Townhouse	104015					30.25	0.00	0.00	30.44
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	219120					63.74	0.00	0.00	64.14
Total						184.37	0.00	0.00	185.53

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use only Natural Gas Hearths

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
	t/yr															
Mitigated											0.00	183.65	183.65	0.01	0.00	184.79
Unmitigated											0.00	183.66	183.66	0.01	0.00	184.81
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	t/yr															
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Health											0.00	181.95	181.95	0.00	0.00	183.05
Landscaping											0.00	1.72	1.72	0.00	0.00	1.75

Total										20.31	0.28	0.00	28.43
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Mitigated

Land Use	Indoor/Outdoor Use (Mgal)	ROG (tons/yr)	NOx (tons/yr)	CO (tons/yr)	SO2 (tons/yr)	Total CO2 (M/yr)	CH4 (M/yr)	N2O (M/yr)	CO2e (M/yr)
Apartments Low Rise	4,378,835 / 3,1053					10.10	0.13	0.00	14.00
Condo/Townhouse	1,250,96 / 0,897,228					2.89	0.04	0.00	4.00
Other Non-Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00
Single Family Housing	1,657,94 / 1,182,97					3.85	0.05	0.00	5.33
Total						16.84	0.22	0.00	23.33

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	ROG (tons/yr)	NOx (tons/yr)	CO (tons/yr)	SO2 (tons/yr)	Total CO2 (M/yr)	CH4 (M/yr)	N2O (M/yr)	CO2e (M/yr)
Mitigated					8.40	0.50	0.00	16.83
Unmitigated					16.81	0.99	0.00	37.67
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

Land Use	Waste Disposed (tons)	ROG (tons/yr)	NOx (tons/yr)	CO (tons/yr)	SO2 (tons/yr)	Total CO2 (M/yr)	CH4 (M/yr)	N2O (M/yr)	CO2e (M/yr)
Apartments Low Rise	38.64					7.84	0.46	0.00	17.58
Condo/Townhouse	11.04					2.24	0.13	0.00	5.02
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	tms/y										Mt/y					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bip-CO2	NBip-CO2	Total CO2	CH4	N2O	CO2e
2015											0.00	161.56	161.56	0.02	0.00	161.89
Total											0.00	161.56	161.56	0.02	0.00	161.89

Mitigated Construction

Year	tms/y										Mt/y					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bip-CO2	NBip-CO2	Total CO2	CH4	N2O	CO2e
2015											0.00	161.56	161.56	0.02	0.00	161.89
Total											0.00	161.56	161.56	0.02	0.00	161.89

2.2 Overall Operational

Unmitigated Operational

Category	tms/y										Mt/y					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bip-CO2	NBip-CO2	Total CO2	CH4	N2O	CO2e
Area											18.72	45.92	64.63	0.09	0.00	65.76
Energy											0.00	138.35	138.35	0.00	0.00	140.21
Mobile											0.00	368.44	368.44	0.02	0.00	368.82
Waste											7.31	0.00	7.31	0.43	0.00	16.38
Water											0.00	5.08	5.08	0.07	0.00	7.11
Total											26.03	578.79	604.61	0.61	0.00	615.28

Mitigated Operational

Category	ROG	NOx	CO	SO2	tons/yr				M1/yr				CO2e				
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2		Total CO2	CH4	N2O	
Area												0.00	45.91	45.91	0.00	0.00	46.20
Energy												0.00	122.46	122.46	0.00	0.00	123.22
Mobile												0.00	362.39	362.39	0.02	0.00	362.75
Waste												3.65	0.00	3.65	0.22	0.00	8.19
Water												0.00	4.21	4.21	0.06	0.00	5.83
Total												3.65	534.97	538.62	0.30	0.00	546.19

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Building Construction - 2015

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	tons/yr				M1/yr				CO2e				
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2		Total CO2	CH4	N2O	
Off-Road												0.00	147.44	147.44	0.01	0.00	147.76

Total										0.00	147.44	147.44	0.01	0.00	147.76
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Unmitigated Construction Off-Site

Category	tons/yr										Mt/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	5.47	5.47	0.00	0.00	5.47
Worker											0.00	5.44	5.44	0.00	0.00	5.45
Total											0.00	10.91	10.91	0.00	0.00	10.92

Mitigated Construction On-Site

Category	tons/yr										Mt/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Off-Road											0.00	147.44	147.44	0.01	0.00	147.76
Total											0.00	147.44	147.44	0.01	0.00	147.76

Mitigated Construction Off-Site

Category	tons/yr										Mt/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	5.47	5.47	0.00	0.00	5.47
Worker											0.00	5.44	5.44	0.00	0.00	5.45
Total											0.00	10.91	10.91	0.00	0.00	10.92

3.3 Architectural Coating - 2015

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	tons/yr			MT/yr				CO2e						
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic-CO2		NBic-CO2	Total CO2	CH4	N2O		
Archit. Coating								0.00				0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road								0.00				2.93	2.93	0.00	0.00	0.00	0.00	2.94
Total								0.00				2.93	2.93	0.00	0.00	0.00	0.00	2.94

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	tons/yr			MT/yr				CO2e						
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic-CO2		NBic-CO2	Total CO2	CH4	N2O		
Hauling								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
Worker								0.00				0.27	0.27	0.00	0.00	0.00	0.00	0.27
Total								0.00				0.27	0.27	0.00	0.00	0.00	0.00	0.27

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	tons/yr			MT/yr				CO2e						
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic-CO2		NBic-CO2	Total CO2	CH4	N2O		
Archit. Coating								0.00				0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road								0.00				2.93	2.93	0.00	0.00	0.00	0.00	2.94
Total								0.00				2.93	2.93	0.00	0.00	0.00	0.00	2.94

Mitigated Construction Off-Site

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

Land Use	Natural Gas Use kBtU	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic-CO2	NBic-CO2	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0											0.00	0.00	0.00	0.00	0.00	0.00
Single Family Housing	988571											0.00	52.75	52.75	0.00	0.00	53.07
Total												0.00	52.75	52.75	0.00	0.00	53.07

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use kWh	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	250079					72.74	0.00	0.00	73.20
Total						72.74	0.00	0.00	73.20

Mitigated

Land Use	Electricity Use kWh	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	239663					68.71	0.00	0.00	70.15
Total						68.71	0.00	0.00	70.15

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use only Natural Gas Hearths

Category	tons/yr										MT/yr				CO2e	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4		N2O
Mitigated											0.00	45.91	45.91	0.00	0.00	46.20
Unmitigated											18.72	45.92	64.63	0.09	0.00	66.76
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

SubCategory	tons/yr										MT/yr				CO2e	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4		N2O
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											18.72	45.49	64.20	0.09	0.00	66.32
Landscaping											0.00	0.43	0.43	0.00	0.00	0.44
Total											18.72	45.92	64.63	0.09	0.00	66.76

Mitigated

SubCategory	tons/yr										MT/yr				CO2e	
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4		N2O
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											0.00	45.49	45.49	0.00	0.00	45.76
Landscaping											0.00	0.43	0.43	0.00	0.00	0.43
Total											0.00	45.92	45.92	0.00	0.00	46.19

7.0 Water Detail

5.0 Energy Detail

5.1 Mitigation Measures Energy

Category	t/yr										M/yr						
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Electricity Mitigated											0.00	280.88	280.88	0.01	0.00	0.00	282.64
Electricity Unmitigated											0.00	280.88	280.88	0.01	0.00	0.00	282.64
Natural Gas Mitigated											0.00	254.65	254.65	0.00	0.00	0.00	256.20
Natural Gas Unmitigated											0.00	254.65	254.65	0.00	0.00	0.00	256.20
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - Natural Gas

Unmitigated

Land Use	Natural Gas Use kBtu	t/yr										M/yr					
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Apartments Low Rise	1.65221e+006										0.00	83.37	83.37	0.00	0.00	0.00	83.87
Other Asphalt Surfaces	0										0.00	0.00	0.00	0.00	0.00	0.00	0.00
Single Family Housing	3.20371e+006										0.00	171.28	171.28	0.00	0.00	0.00	172.32
Total											0.00	254.65	254.65	0.00	0.00	0.00	256.19

Mitigated

Land Use	Natural Gas Use kBtu	t/yr										M/yr					
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Apartments Low Rise	1.65221e+006										0.00	83.37	83.37	0.00	0.00	0.00	83.87
Other Asphalt Surfaces	0										0.00	0.00	0.00	0.00	0.00	0.00	0.00
Single Family Housing	3.20371e+006										0.00	171.28	171.28	0.00	0.00	0.00	172.32
Total											0.00	254.65	254.65	0.00	0.00	0.00	256.19

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use (kWh)	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		t/yr							
Apartments Low Rise	322552					93.83	0.00	0.00	94.42
Other Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	643060					187.05	0.01	0.00	188.22
Total						280.88	0.01	0.00	282.64

Mitigated

Land Use	Electricity Use (kWh)	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		t/yr							
Apartments Low Rise	322552					93.83	0.00	0.00	94.42
Other Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	643060					187.05	0.01	0.00	188.22
Total						280.88	0.01	0.00	282.64

6.0 Area Detail

6.1 Mitigation Measures Area

Category	t/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	Non-CO2	Total CO2	CH4	N2O	CO2e
Mitigated											61.69	228.27	289.96	0.29	0.00	297.44
Unmitigated											61.69	228.27	289.96	0.29	0.00	297.44
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

SubCategory	tons/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											61.69	226.13	287.83	0.29	0.00	285.26
Landscaping											0.00	2.13	2.13	0.00	0.00	2.18
Total											61.69	228.26	289.96	0.29	0.00	297.44

Mitigated

SubCategory	tons/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											61.69	226.13	287.83	0.29	0.00	295.26
Landscaping											0.00	2.13	2.13	0.00	0.00	2.18
Total											61.69	228.26	289.96	0.29	0.00	297.44

7.0 Water Detail

7.1 Mitigation Measures Water

Category	toms/yr										M/yr				
	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e							
Mitigated					25.25	0.35	0.01	35.33							
Unmitigated					25.25	0.35	0.01	35.33							
Total	NA	NA	NA	NA	NA	NA	NA	NA							

7.2 Water by Land Use

Unmitigated

Land Use	Indoor/Outdoor Use Mgal	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e	
		tons/yr							Mt/yr	
Apartments Low Rise	5.47294 / 3.45033					12.19	0.17	0.00	17.06	
Other Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00	
Single Family Housing	5.86386 / 3.69678					13.06	0.18	0.00	18.27	
Total						25.25	0.35	0.00	35.33	

Mitigated

Land Use	Indoor/Outdoor Use Mgal	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e	
		tons/yr							Mt/yr	
Apartments Low Rise	5.47294 / 3.45033					12.19	0.17	0.00	17.06	
Other Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00	
Single Family Housing	5.86386 / 3.69678					13.06	0.18	0.00	18.27	
Total						25.25	0.35	0.00	35.33	

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					26.62	1.57	0.00	58.67	
Unmitigated					26.62	1.57	0.00	58.67	
Total	NA	NA	NA	NA	NA	NA	NA	NA	

8.2 Waste by Land Use

Unmitigated

Land Use	Waste Disposed Tons	PM10	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Apartments Low Rise	38.64					7.84	0.46	0.00	17.58
Other Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	92.52					18.78	1.11	0.00	42.09
Total						26.62	1.57	0.00	59.67

Mitigated

Land Use	Waste Disposed Tons	PM10	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Apartments Low Rise	38.64					7.84	0.46	0.00	17.58
Other Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	92.52					18.78	1.11	0.00	42.09
Total						26.62	1.57	0.00	59.67

Diamond Oaks VTTM - Phase 3
Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Use	Size	Metric
Single Family Housing	35	Dwelling Unit
Apartments/Low Rise	84	Dwelling Unit
Other Non-Asphalt Surfaces	3.17	Acres

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	3	Precipitation Freq (Days)	51		

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Based on site plan
- Construction Phase - Based on estimated construction schedule
- Off-road Equipment - New ARB OFFROAD Load Factors
- Off-road Equipment -
- Vehicle Trips - Based on Traffic Impact Study
- Vehicle Emission Factors - VRRPA Residential Fleet Mix
- Vehicle Emission Factors -
- Vehicle Emission Factors -
- Mobile Land Use Mitigation -
- Area Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Waste Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	ROG		NOx		CO		SO2		PM10 Totals		PM2.5 Totals		NMHC-CO2		CH4		CO2e	
	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2016													0.00	238.05	238.05	0.02	0.00	238.45
2017													0.00	6.39	6.39	0.00	0.00	6.40
Total													0.00	244.44	244.44	0.02	0.00	244.85

Mitigated Construction

Year	ROG		NOx		CO		SO2		PM10 Totals		PM2.5 Totals		NMHC-CO2		CH4		CO2e	
	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2016													0.00	238.05	238.05	0.02	0.00	238.45
2017													0.00	6.39	6.39	0.00	0.00	6.40
Total													0.00	244.44	244.44	0.02	0.00	244.85

2.2 Overall Operational

Unmitigated Operational

Category	ROG		NOx		CO		SO2		PM10 Totals		PM2.5 Totals		NMHC-CO2		CH4		CO2e	
	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Area													20.50	156.11	176.61	6.10	0.00	179.00
Energy													0.00	316.55	316.55	0.01	0.01	318.50
Mobile													0.00	978.01	978.01	0.05	0.00	978.99
Waste													15.15	0.00	15.15	0.00	0.00	31.95
Water													0.00	17.27	17.27	0.24	0.01	24.16
Total													35.65	1,467.74	1,503.59	1.30	0.02	1,515.29

Mitigated Operational

Category	Emission										Total CO2				CO2e		
	RO5	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bldg-CO2	Off-Road	Transport	Total		CH4	N2O
Area											0.00	156.10	156.10	0.00	0.00	0.00	157.07
Energy											0.00	276.46	276.46	0.01	0.00	0.00	280.18
Mobile											0.00	912.41	912.41	0.04	0.00	0.00	913.34
Waste											7.56	0.00	7.56	0.45	0.00	0.00	16.88
Water											0.00	14.31	14.31	0.19	0.00	0.00	18.83
Total											7.56	1,361.28	1,368.85	0.69	0.00	0.00	1,387.40

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Building Construction - 2016

Unmitigated Construction On-Site

Category	Emission										Total CO2				CO2e		
	RO5	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bldg-CO2	Off-Road	Transport	Total		CH4	N2O
Off-Road											0.00	178.55	178.55	0.02	0.00	0.00	178.90
Total											0.00	178.55	178.55	0.02	0.00	0.00	178.90

Unmitigated Construction Off-Site

Category	Emission										Total CO2				CO2e		
	RO5	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bldg-CO2	Off-Road	Transport	Total		CH4	N2O
Heating											0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	21.53	21.53	0.00	0.00	0.00	21.54
Waste											0.00	36.12	36.12	0.00	0.00	0.00	38.17
Total											0.00	57.65	57.65	0.00	0.00	0.00	57.71

Mitigated Construction On-Site

Category	NOx		CO		SO2		PM10		PM2.5		Total CO2		CH4		N2O		CO2e	
	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive		
Off-Road																		
Total	0.00	178.85	178.85	0.02	0.00	0.00	178.85	178.85	0.02	0.00	178.80	0.00	178.85	178.85	0.02	0.00	178.80	

Mitigated Construction Off-Site

Category	NOx		CO		SO2		PM10		PM2.5		Total CO2		CH4		N2O		CO2e	
	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive		
Hauling																		
Vendor																		
Worker																		
Total	0.00	21.83	21.83	0.00	0.00	0.00	21.83	21.83	0.00	0.00	21.54	0.00	21.83	21.83	0.00	0.00	21.54	

3.3 Architectural Coating - 2016

Unmitigated Construction On-Site

Category	NOx		CO		SO2		PM10		PM2.5		Total CO2		CH4		N2O		CO2e	
	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive		
Alcohol Coating																		
Off-Road																		
Total	0.00	1.28	1.28	0.00	0.00	0.00	1.28	1.28	0.00	0.00	1.28	0.00	1.28	1.28	0.00	0.00	1.28	

Unmitigated Construction Off-Site

Category	NOx		CO		SO2		PM10		PM2.5		Total CO2		CH4		N2O		CO2e	
	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive		
Hauling																		
Vendor																		
Worker																		
Total	0.00	0.56	0.56	0.00	0.00	0.00	0.56	0.56	0.00	0.00	0.56	0.00	0.56	0.56	0.00	0.00	0.56	

Mitigated Construction On-Site

Category	On-Site									
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2e
Arch. Coating										
Off-Road										
Total										

Mitigated Construction Off-Site

Category	On-Site										Off-Site									
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2e	Bin-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e				
Hauling																				
Vendor																				
Worker																				
Total																				

3.3 Architectural Coating - 2017

Unmitigated Construction On-Site

Category	On-Site										Off-Site									
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2e	Bin-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e				
Arch. Coating																				
Off-Road																				
Total																				

Unmitigated Construction Off-Site

Category	On-Site										Off-Site									
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2e	Bin-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e				
Hauling																				
Vendor																				
Worker																				
Total																				

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Biogenic CO2 Total	Total CO2	CH4	N2O	CO2e
ACORN Coating											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	4.46	4.46	0.00	0.00	4.47
Total											0.00	4.46	4.46	0.00	0.00	4.47

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Biogenic CO2 Total	Total CO2	CH4	N2O	CO2e
Heating											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
Worker											0.00	1.92	1.92	0.00	0.00	1.93
Total											0.00	1.92	1.92	0.00	0.00	1.93

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

- Increase Density
- Increase Diversity
- Improve Walkability Design
- Improve Destination Accessibility
- Increase Transit Accessibility
- Improve Pedestrian Network

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Biogenic CO2 Total	Total CO2	CH4	N2O	CO2e
Mitigated											0.00	912.41	912.41	0.04	0.00	913.34
Unmitigated											0.00	978.01	978.01	0.06	0.00	978.99
Total											0.00	1,890.42	1,890.42	0.10	0.00	1,892.33

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate		Mitigated Annual VMT	
	Weekday	Sunday	Weekday	Sunday
Apartment/Low Rise	631.68	601.44	1,719,315	1,500,682
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00
Single Family Housing	397.95	352.80	1,095,891	992,275
Total	1,029.63	954.24	2,785,206	2,503,958

4.3 Trip Type Information

Land Use	Miles				Trip %			
	HW or C/W	HS or C-C	H-O or C-NW	H-O or C-NW	HW or C/W	HS or C-C	H-O or C-NW	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	7.50	38.40	22.60	39.00	39.00
Other Non-Asphalt Surfaces	9.50	7.30	7.30	7.30	0.00	0.00	0.00	0.00
Single Family Housing	10.50	7.30	7.50	7.50	38.40	22.60	39.00	39.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5	Bic-CO2	Bic-CO2 Total	CH4	N2O	CO2e	
														PM10 Total
Electricity									0.00	167.09	167.09	0.01	0.00	167.09
NaturalGas									0.00	166.57	166.57	0.01	0.00	167.61
Miscellaneous									0.00	118.37	118.37	0.00	0.00	118.09
NaturalGas									0.00	149.97	149.97	0.00	0.00	150.89
Unmitigated	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	Fugitive PM2.5	Exhaust PM2.5	Bic-CO2	Bic-CO2 Total	CH4	N2O	CO2e
Apartments Low Rise	1.5622E+09									0.00	83.37	83.37	0.00	83.87
Other Non-Asphalt Surfaces	0									0.00	0.00	0.00	0.00	0.00
Single Family Housing	1.24827E+09									0.00	66.61	66.61	0.00	67.02
Total										0.00	149.98	149.98	0.00	150.89

Mitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5	Bic-CO2	Bic-CO2 Total	CH4	N2O	CO2e
Apartments Low Rise	1.22953E+09									0.00	65.61	65.61	0.00	66.01
Other Non-Asphalt Surfaces	0									0.00	0.00	0.00	0.00	0.00
Single Family Housing	988971									0.00	52.75	52.75	0.00	53.07
Total										0.00	118.36	118.36	0.00	119.08

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use kWh	NOx lb/yr	CO lb/yr	SO2 lb/yr	Total CO2 lb/yr	CH4 lb/yr	N2O lb/yr	CO2e lb/yr
Land Use	32282				93.83	0.00	0.00	94.42
Apartment Low	0				0.00	0.00	0.00	0.00
Other Multifamily	25079				72.74	0.00	0.00	73.20
Single Family					165.57	0.00	0.00	167.62
Other								
Total								

Mitigated

	Electricity Use kWh	NOx lb/yr	CO lb/yr	SO2 lb/yr	Total CO2 lb/yr	CH4 lb/yr	N2O lb/yr	CO2e lb/yr
Land Use	31020				90.38	0.00	0.00	90.95
Apartment Low	0				0.00	0.00	0.00	0.00
Other Multifamily	23963				89.71	0.00	0.00	90.15
Single Family					180.89	0.00	0.00	181.10
Other								
Total								

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use only Natural Gas Hearths

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Site CO2	MBio CO2	Total CO2	CH4	N2O	CO2e
Mitigated											0.00	156.10	156.10	0.00	0.00	157.07
Unmitigated											20.50	158.11	178.61	0.10	0.00	179.50
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Site CO2	MBio CO2	Total CO2	CH4	N2O	CO2e
Architectural											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Health											20.50	154.66	175.15	0.10	0.00	176.11
Landscaping											0.00	1.46	1.46	0.00	0.00	1.49
Total											20.50	156.12	176.61	0.10	0.00	178.50

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Site CO2	MBio CO2	Total CO2	CH4	N2O	CO2e
Architectural											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Health											0.00	154.66	154.66	0.00	0.00	155.80
Landscaping											0.00	1.45	1.45	0.00	0.00	1.48
Total											0.00	156.11	156.11	0.00	0.00	167.28

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Category	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Mitigated					14.31	0.19	0.00	19.83
Unmitigated					17.27	0.24	0.01	24.18
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

Land Use	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	Mgal	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	Mt/yr
Apartments Low	5,47284 /					12.19	0.17	0.00	17.66
Other Non-Asphalt	3.0 / 0					0.00	0.00	0.00	0.00
Other Non-Asphalt	2,28039 /					6.66	0.07	0.00	7.11
Single Family	1,51064					17.27	0.24	0.00	24.17
Total									

Mitigated

Land Use	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	Mgal	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	Mt/yr
Apartments Low	4,37635 / 3.055					10.10	0.13	0.00	14.00
Other Non-Asphalt	0 / 0					0.00	0.00	0.00	0.00
Other Non-Asphalt	1,82431 /					4.21	0.06	0.00	5.83
Single Family	1,28811					14.31	0.19	0.00	18.83
Total									

8.0 Waste Detail

8.1 Mitigation Measures Waste
Institute Recycling and Composting Services

Category/Year

Category/Year	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	Mt/yr
Mitigated	7.58	0.43	0.00	0.00	0.00	0.00	0.00	18.98
Unmitigated	15.15	0.90	0.00	0.00	0.00	0.00	0.00	33.85
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

Land Use	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	Mt/yr
Apartments Low	36.64					7.84	0.46	0.00	17.45
Other Non-Asphalt	0					0.00	0.00	0.00	0.00
Other Non-Asphalt	36					7.31	0.43	0.00	15.38
Single Family						15.15	0.88	0.00	31.98
Total									

Mitigated

	Waste Disposed Tons	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	18.32					3.92	0.23	0.00	8.78
Apartments Low						0.00	0.00	0.00	0.00
Other Non-Apartment	0					0.00	0.00	0.00	0.00
Subtotal	18					3.92	0.23	0.00	8.78
Single Family						0.00	0.00	0.00	0.00
Total						3.92	0.23	0.00	8.78

9.0 Vegetation

Diamond Oaks VTTM - Phase 4
Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	55	Dwelling Unit
Other Non-Asphalt Surfaces	1.99	Acre

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	3	Precipitation Freq (Days)	51		

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Based on site plan
- Construction Phase - Based on estimated construction schedule
- Off-road Equipment - New ARB OFFROAD Load Factors
- Off-road Equipment -
- Vehicle Trips - Based on Traffic Impact Study
- Vehicle Emission Factors - VRPA Residential Fleet Mix
- Vehicle Emission Factors -
- Vehicle Emission Factors -
- Mobile Land Use Mitigation -
- Area Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Waste Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	tonnes										Mtpy					
	RO5	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NSB-CO2	Total CO2	CH4	N2O	CO2e
2017											0.00	166.62	166.62	0.01	0.00	166.90
Total											0.00	166.62	166.62	0.01	0.00	166.90

Mitigated Construction

Year	tonnes										Mtpy					
	RO5	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NSB-CO2	Total CO2	CH4	N2O	CO2e
2017											0.00	166.62	166.62	0.01	0.00	166.90
Total											0.00	166.62	166.62	0.01	0.00	166.90

2.2 Overall Operational

Unmitigated Operational

Category	tonnes										Mtpy					
	RO5	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NSB-CO2	Total CO2	CH4	N2O	CO2e
Area											20.50	72.15	92.65	0.10	0.00	93.11
Energy											0.00	218.98	218.98	0.01	0.00	220.33
Mobile											0.00	567.62	567.62	0.03	0.00	568.45
Waste											11.47	0.00	11.47	0.68	0.00	25.71
Water											0.00	7.98	7.98	0.11	0.00	11.17
Total											31.97	867.03	899.00	0.93	0.00	920.77

Mitigated Operational

Category	t/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	Non-CO2	Total CO2	CH4	N2O	CO2e
Area											0.00	72.15	72.15	0.00	0.00	72.60
Energy											0.00	192.44	192.44	0.01	0.00	193.84
Mobile											0.00	528.94	528.94	0.02	0.00	530.33
Waste											5.74	0.00	5.74	0.34	0.00	12.88
Water											0.00	6.61	6.61	0.00	0.00	9.17
Total											5.74	831.84	836.78	0.48	0.00	838.60

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Building Construction - 2017

Unmitigated Construction On-Site

Category	t/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	Non-CO2	Total CO2	CH4	N2O	CO2e
Off-Road											0.00	147.44	147.44	0.01	0.00	147.70
Total											0.00	147.44	147.44	0.01	0.00	147.70

Unmitigated Construction Off-Site

Category	t/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	Non-CO2	Total CO2	CH4	N2O	CO2e
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	8.21	8.21	0.00	0.00	8.21
Worker											0.00	7.99	7.99	0.00	0.00	8.00
Total											0.00	16.20	16.20	0.00	0.00	16.21

Mitigated Construction On-Site

Category	On-Site										Off-Road					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NSB-CO2	Total CO2	CH4	N2O	CO2e
Off-Road											0.00	147.44	147.44	0.01	0.00	147.70
Total											0.00	147.44	147.44	0.01	0.00	147.70

Mitigated Construction Off-Site

Category	On-Site										Off-Site					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NSB-CO2	Total CO2	CH4	N2O	CO2e
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	8.21	8.21	0.00	0.00	8.21
Worker											0.00	7.99	7.99	0.00	0.00	8.00
Total											0.00	16.20	16.20	0.00	0.00	16.21

3.3 Architectural Coating - 2017

Unmitigated Construction On-Site

Category	On-Site										Off-Site					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NSB-CO2	Total CO2	CH4	N2O	CO2e
Archit. Coating											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	2.68	2.68	0.00	0.00	2.68
Total											0.00	2.68	2.68	0.00	0.00	2.68

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

- Increase Density
- Increase Diversity
- Improve Walkability Design
- Improve Destination Accessibility
- Increase Transit Accessibility
- Improve Pedestrian Network

Category	t/yr										M/Day			
	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM10	Exhaust PM2.5	Exhaust PM2.5	Rec-CO2	NSR-CO2	Total CO2	CH4	N2O	CO2e
Mitigated								0.00	528.84	528.84	0.02	0.00	0.00	530.33
Unmitigated								0.00	567.92	567.92	0.03	0.00	0.00	568.45
Total	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	Unmitigated	Mitigated	Unmitigated	Mitigated
Other Non-Asphalt Surfaces	0.00	0.00	1,876,543	1,876,543	1,560,861	1,560,861
Single Family Housing	625.35	482.35	1,876,543	1,560,861	1,560,861	1,560,861
Total	625.35	482.35	1,876,543	1,560,861	1,560,861	1,560,861

4.3 Trip Type Information

Land Use	Miles			Trip %		
	HW or C-W	HS or C-C	HO or C-NW	HW or C-W	HS or C-C	HO or C-NW
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00
Single Family Housing	10.80	7.30	7.50	38.40	22.60	39.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Category	tons/yr										Mtyr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic-CO2	NBic-CO2	total CO2	CH4	N2O	CO2e
Electricity Mitigated											0.00	109.55	109.55	0.00	0.00	110.23
Electricity Unmitigated											0.00	114.31	114.31	0.01	0.00	115.02
NaturalGas Mitigated											0.00	82.90	82.90	0.00	0.00	83.40
NaturalGas Unmitigated											0.00	104.67	104.67	0.00	0.00	105.31
Unmitigated 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	tons/yr										Mtyr					
	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Exhaust PM2.5	PM2.5 Total	Bic-CO2	NBic-CO2	total CO2	CH4	N2O	CO2e
Other Non-Asphalt	0										0.00	0.00	0.00	0.00	0.00	0.00
Single Family Housing	1,961,486,006										0.00	104.67	104.67	104.67	0.00	105.31
Total											0.00	104.67	104.67	104.67	0.00	105.31

Mitigated

Land Use	tons/yr										Mtyr					
	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Exhaust PM2.5	PM2.5 Total	Bic-CO2	NBic-CO2	total CO2	CH4	N2O	CO2e
Other Non-Asphalt	0										0.00	0.00	0.00	0.00	0.00	0.00
Single Family Housing	1,553,174,006										0.00	82.90	82.90	82.90	0.00	83.40
Total											0.00	82.90	82.90	82.90	0.00	83.40

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	tons/yr										Mtyr					
	Electricity Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Exhaust PM2.5	PM2.5 Total	Bic-CO2	NBic-CO2	total CO2	CH4	N2O	CO2e
Other Non-Asphalt	0										0.00	0.00	0.00	0.00	0.00	0.00
Single Family Housing	322861										114.31	0.01	0.00	115.02	0.00	115.02
Total											114.31	0.01	0.00	115.02	0.00	115.02

Mitigated

Category	Electricity Use kWh	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	0					0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	376573					109.95	0.00	0.00	110.23
Total						109.95	0.00	0.00	110.23

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use only Natural Gas Hearths

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NSIP-CO2	Total CO2	CH4	N2O	CO2e
Mitigated											0.00	72.15	72.15	0.00	0.00	72.80
Unmitigated											20.50	72.15	92.65	0.10	0.00	93.11
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NSIP-CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											20.50	71.48	91.98	0.10	0.00	94.42
Landscaping											0.00	0.67	0.67	0.00	0.00	0.69
Total											20.50	72.15	92.65	0.10	0.00	95.11

Mitigated

Subcategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PH10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic-CO2	N2o-CO2	Total CO2	CH4	N2O	CO2e
	M/yr															
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Health											0.00	71.48	71.48	0.00	0.00	71.91
Landscape											0.00	0.67	0.67	0.00	0.00	0.68
Total											0.00	72.15	72.15	0.00	0.00	72.89

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Category	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	M/yr							
Mitigated	6.61	0.09	0.00	0.00	0.00	0.00	0.00	9.17
Unmitigated	7.96	0.11	0.00	0.00	0.00	0.00	0.00	11.17
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

Land Use	Interior/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		M/yr							
Other Non-Asphalt Single-Family Housing	0.10					0.00	0.00	0.00	0.00
Other Non-Asphalt Single-Family Housing	3.95377					7.96	0.11	0.00	11.17
Total	2.95377					7.96	0.11	0.00	11.17

Mitigated

Land Use	Interior/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		M/yr							
Other Non-Asphalt Single-Family Housing	0.10					0.00	0.00	0.00	0.00
Other Non-Asphalt Single-Family Housing	2.86678					6.61	0.09	0.00	9.17
Total	2.96778					6.61	0.09	0.00	9.17

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

Category/Year	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	t/yr							
Mitigated					5.74	0.34	0.00	12.86
Unmitigated					11.47	0.68	0.00	25.71
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

Land Use	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	t/yr	t/yr							
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	56.52					11.47	0.68	0.00	25.71
Total						11.47	0.68	0.00	25.71

Mitigated

Land Use	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	t/yr	t/yr							
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	28.26					5.74	0.34	0.00	12.86
Total						5.74	0.34	0.00	12.86

9.0 Vegetation

Diamond Oaks VTTM - Phase 5
Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Use	Size	Metric
Single Family Housing	11	Dwelling Unit
Other Non-Asphalt Surfaces	2.23	Acres

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	3	Precipitation Freq (Days)	51		

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Based on site plan
- Construction Phase - Based on estimated construction schedule
- Off-road Equipment - New ARB OFFROAD Load Factors
- Off-road Equipment -
- Vehicle Trips - Based on Traffic Impact Study
- Vehicle Emission Factors - VRPA Residential Fleet Mix
- Vehicle Emission Factors -
- Vehicle Emission Factors -
- Mobile Land Use Mitigation -
- Area Mitigation -
- Energy Mitigation -
- Water Mitigation -
- Waste Mitigation -
- Off-road Equipment - Based on ARB OFFROAD Load Factors
- Off-road Equipment - Based on ARB OFFROAD Load Factors
- Grading - Based on site plan
- Trips and VMT -
- Woodstoves - all gas fireplaces

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	CO		NOx		SO2		PM10 Total		PM2.5 Total		Total CO2		CH4		N2O		CO2e
	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Biogenic	Net	Fugitive	Exhaust	Fugitive	Exhaust	
2025											0.00	185.66	0.01	0.00	0.00	0.00	185.86
Total											0.00	185.66	0.01	0.00	0.00	0.00	185.86

Mitigated Construction

Year	CO		NOx		SO2		PM10 Total		PM2.5 Total		Total CO2		CH4		N2O		CO2e
	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Biogenic	Net	Fugitive	Exhaust	Fugitive	Exhaust	
2025											0.00	185.66	0.01	0.00	0.00	0.00	185.86
Total											0.00	185.66	0.01	0.00	0.00	0.00	185.86

2.2 Overall Operational

Unmitigated Operational

Category	CO		NOx		SO2		PM10 Total		PM2.5 Total		Total CO2		CH4		N2O		CO2e
	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Biogenic	Net	Fugitive	Exhaust	Fugitive	Exhaust	
Area											0.00	26.13	0.00	0.00	0.00	0.00	26.29
Energy											0.00	43.80	0.00	0.00	0.00	0.00	44.07
Mobile											0.00	331.27	0.01	0.00	0.00	0.00	331.43
Waste											2.27	0.00	2.27	0.13	0.00	0.00	5.05
Water											0.00	1.60	0.02	0.00	0.00	0.00	2.23
Total											2.27	402.80	465.07	0.16	0.00	0.00	405.10

Mitigated Operational

Category	Emissions										Total					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Area											0.00	28.13	28.13	0.00	0.00	28.29
Energy											0.00	34.49	34.49	0.00	0.00	34.73
Mobile											0.00	308.88	308.88	0.01	0.00	308.84
Waste											1.13	0.00	1.13	0.07	0.00	2.84
Water											0.00	1.32	1.32	0.02	0.00	1.83
Total											1.13	374.82	375.95	0.10	0.00	376.23

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Grading - 2025

Unmitigated Construction On-Site

Category	Emissions										Total					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	68.84	68.84	0.00	0.00	68.81
Total											0.00	68.84	68.84	0.00	0.00	68.81

Unmitigated Construction Off-Site

Category	Emissions										Total					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling											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
Worker											0.00	2.07	2.07	0.00	0.00	2.07
Total											0.00	2.07	2.07	0.00	0.00	2.07

Mitigated Construction On-Site

Category	PM10		PM2.5		SO2		CO		NOx		CH4		CO2e	
	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Total	Net	Total	Net
Fugitive Dust														
Off-Road														
Total														

Mitigated Construction Off-Site

Category	PM10		PM2.5		SO2		CO		NOx		CH4		CO2e	
	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Total	Net	Total	Net
Hauling														
Vendor														
Worker														
Total														

3.3 Paving - 2025

Unmitigated Construction On-Site

Category	PM10		PM2.5		SO2		CO		NOx		CH4		CO2e	
	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Total	Net	Total	Net
Off-Road														
Paving														
Total														

Unmitigated Construction Off-Site

Category	PM10		PM2.5		SO2		CO		NOx		CH4		CO2e	
	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Total	Net	Total	Net
Hauling														
Vendor														
Worker														
Total														

Mitigated Construction On-Site

Category	CO		SO ₂		PM ₁₀		PM _{2.5}		PM ₁₀ total		PM _{2.5} total		Total CO _{2e}		CH ₄		N ₂ O		CO _{2e}	
	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Bio-CO ₂	NBio-CO ₂	Total CO ₂	CH ₄	CH ₄	N ₂ O	N ₂ O	CO _{2e}
Off-Road													0.00	19.74	19.74	0.00	0.00	0.00	0.00	19.78
Paving													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total													0.00	19.74	19.74	0.00	0.00	0.00	0.00	19.78

Mitigated Construction Off-Site

Category	CO		SO ₂		PM ₁₀		PM _{2.5}		PM ₁₀ total		PM _{2.5} total		Total CO _{2e}		CH ₄		N ₂ O		CO _{2e}	
	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Bio-CO ₂	NBio-CO ₂	Total CO ₂	CH ₄	CH ₄	N ₂ O	N ₂ O	CO _{2e}
Hauling													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
Worker													0.00	1.06	1.06	0.00	0.00	0.00	0.00	1.06
Total													0.00	1.06	1.06	0.00	0.00	0.00	0.00	1.06

3.4 Building Construction - 2025

Unmitigated Construction On-Site

Category	CO		SO ₂		PM ₁₀		PM _{2.5}		PM ₁₀ total		PM _{2.5} total		Total CO _{2e}		CH ₄		N ₂ O		CO _{2e}	
	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Bio-CO ₂	NBio-CO ₂	Total CO ₂	CH ₄	CH ₄	N ₂ O	N ₂ O	CO _{2e}
Off-Road													0.00	89.28	89.28	0.00	0.00	0.00	0.00	89.36
Total													0.00	89.28	89.28	0.00	0.00	0.00	0.00	89.36

Unmitigated Construction Off-Site

Category	CO		SO ₂		PM ₁₀		PM _{2.5}		PM ₁₀ total		PM _{2.5} total		Total CO _{2e}		CH ₄		N ₂ O		CO _{2e}	
	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Exhaust	Fugitive	Bio-CO ₂	NBio-CO ₂	Total CO ₂	CH ₄	CH ₄	N ₂ O	N ₂ O	CO _{2e}
Hauling													0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor													0.00	0.83	0.83	0.00	0.00	0.00	0.00	0.83
Worker													0.00	0.85	0.85	0.00	0.00	0.00	0.00	0.85
Total													0.00	1.68	1.68	0.00	0.00	0.00	0.00	1.68

Mitigated Construction On-Site

Category	On-Site				Off-Road				Total			
	PM10	PM2.5	SO2	CO	PM10	PM2.5	SO2	CO	PM10	PM2.5	SO2	CO
Off-Road	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	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 Construction Off-Site

Category	On-Site				Off-Road				Total			
	PM10	PM2.5	SO2	CO	PM10	PM2.5	SO2	CO	PM10	PM2.5	SO2	CO
Heating	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
Worker	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5 Architectural Coating - 2025

Unmitigated Construction On-Site

Category	On-Site				Off-Road				Total			
	PM10	PM2.5	SO2	CO	PM10	PM2.5	SO2	CO	PM10	PM2.5	SO2	CO
Arch. Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	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 Construction Off-Site

Category	On-Site				Off-Road				Total			
	PM10	PM2.5	SO2	CO	PM10	PM2.5	SO2	CO	PM10	PM2.5	SO2	CO
Heating	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
Worker	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Category	lbm/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Mitigated											0.00	26.13	26.13	0.00	0.00	26.29
Unmitigated											0.00	26.13	26.13	0.00	0.00	26.29
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

SubCategory	lbm/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Health											0.00	25.99	25.99	0.00	0.00	26.15
Landscaping											0.00	0.13	0.13	0.00	0.00	0.14
Total											0.00	26.12	26.12	0.00	0.00	26.29

Mitigated

SubCategory	lbm/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Health											0.00	25.99	25.99	0.00	0.00	26.15
Landscaping											0.00	0.13	0.13	0.00	0.00	0.14
Total											0.00	26.12	26.12	0.00	0.00	26.29

7.0 Water Detail

7.1 Mitigation Measures Water
Apply Water Conservation Strategy

Category	lbm/yr										MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Total CO2	CH4	N2O	CO2e	
Mitigated											1.32	0.02	0.00	1.85	
Unmitigated											1.60	0.02	0.00	2.23	
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

7.2 Water by Land Use

Unmitigated

Water/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use								
Other Non-Asphalt	0.70				0.00	0.00	0.00	0.00
Single Family	0.716894				1.50	0.02	0.00	2.23
Multi-Family	0.431629				1.65	0.32	0.00	2.23
TOTAL								

Mitigated

Water/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use								
Other Non-Asphalt	0.70				0.00	0.00	0.00	0.00
Single Family	0.733957				1.32	0.02	0.00	1.83
Multi-Family	0.466266				1.12	0.02	0.00	1.83
TOTAL								

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

Category/Year	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Mitigated					1.13	0.07	0.00	2.54
Unmitigated					2.27	0.13	0.00	5.08
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								
Other Non-Asphalt	0				0.00	0.00	0.00	0.00
Single Family	11.16				2.27	0.13	0.00	5.08
Multi-Family					2.27	0.13	0.00	5.08
TOTAL								

Mitigated

Land Use	Waste Disposed Tons	ROG	NO _x	CO	SO ₂	Total CO ₂	CH ₄	N ₂ O	CO _{2e}
									Mt/yr
Other Non-Asphalt Surfaces	0					0.03	0.00	0.00	0.00
Household	5.08					1.13	0.07	0.00	2.54
Total						1.13	0.07	0.00	2.54

9.0 Vegetation

Diamond Oaks VTTM - BAU
Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	168	Dwelling Unit
Apartments Low Rise	168	Dwelling Unit
Condo/Townhouse	3.08	Dwelling Unit
Other Non-Asphalt Surfaces	14.25	Acre

1.2 Other Project Characteristics

Urbanization Urban Utility Company Southern California Edison

Climate Zone 3 Wind Speed (m/s) 2.2

Precipitation Freq (Days) 51

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Based on site plan
- Construction Phase - No construction, only BAU
- Vehicle Trips - Based on Traffic Impact Study
- Vehicle Emission Factors - VRPA Residential Fleet Mix

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

Category	ROG	NOx	CO	SO2	t/yr			M/yr					CO2e
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	
Area								158.21	444.83	603.03	0.74	0.01	621.21
Energy								0.00	1,095.28	1,095.28	0.04	0.02	1,102.05
Mobile								0.00	3,711.71	3,711.71	0.47	0.00	3,721.68
Waste								51.05	0.00	51.05	3.02	0.00	114.41
Water								0.00	49.20	49.20	0.68	0.02	68.85
Total								209.26	5,301.02	5,510.27	4.95	0.05	5,628.20

Mitigated Operational

Category	ROG	NOx	CO	SO2	t/yr			M/yr					CO2e
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	
Area								158.21	444.83	603.03	0.74	0.01	621.21
Energy								0.00	1,095.28	1,095.28	0.04	0.02	1,102.05
Mobile								0.00	3,711.71	3,711.71	0.47	0.00	3,721.68
Waste								51.05	0.00	51.05	3.02	0.00	114.41
Water								0.00	49.20	49.20	0.68	0.02	68.85
Total								209.26	5,301.02	5,510.27	4.95	0.05	5,628.20

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Category	tons/yr										M/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Mitigated											0.00	3,711.71	3,711.71	0.47	0.00	3,721.68
Unmitigated											0.00	3,711.71	3,711.71	0.47	0.00	3,721.68
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	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Apartments Low Rise	1,263.36	1,202.88	1,019.76	3,438,630	3,438,630	3,438,630	3,438,630
Condo/Townhouse	17.96	22.05	18.70	52,561	52,561	52,561	52,561
Other Non-Asphalt Surfaces	0.00	0.00	0.00	5,121,076	5,121,076	5,121,076	5,121,076
Single Family Housing	1,910.16	1,693.44	1,473.36	8,612,268	8,612,268	8,612,268	8,612,268
Total	3,191.48	2,918.37	2,511.82				

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	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	38.40	22.60	22.60	39.00	22.60	39.00
Condo/Townhouse	10.80	7.30	7.50	38.40	22.60	22.60	39.00	22.60	39.00
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0.00	0.00	0.00
Single Family Housing	10.80	7.30	7.50	38.40	22.60	22.60	39.00	22.60	39.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Electricity Mitigated											0.00	564.77	564.77	0.03	0.01	568.31
Electricity Unmitigated											0.00	564.77	564.77	0.03	0.01	568.31
NaturalGas Mitigated											0.00	530.51	530.51	0.01	0.01	533.73
NaturalGas Unmitigated											0.00	530.51	530.51	0.01	0.01	533.73
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	tons/yr										MT/yr						
	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Apartment Low Rise	3.32473e+006											0.00	177.42	177.42	0.00	0.00	178.50
Condo/Townhouse	71206											0.00	3.80	3.80	0.00	0.00	3.82
Other Non-Asphalt Surfaces	0											0.00	0.00	0.00	0.00	0.00	0.00
Single Family Housing	6.54536e+006											0.00	349.29	349.29	0.01	0.01	351.41
Total												0.00	530.51	530.51	0.01	0.01	533.73

Mitigated

Land Use	Natural Gas Use kBtu	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic-CO2	NBic-CO2	Total CO2	CH4	N2O	CO2e
Land Use																	
Apartments Low Rise	3.32473e+006											0.00	177.42	177.42	0.00	0.00	178.50
Condo/Townhouse	71206											0.00	3.80	3.80	0.00	0.00	3.82
Other Non-Asphalt Surfaces	0											0.00	0.00	0.00	0.00	0.00	0.00
Single Family Housing	6.54533e+006											0.00	349.29	349.29	0.01	0.01	351.41
Total												0.00	530.51	530.51	0.01	0.01	533.73

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use kWh	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use									
Apartments Low Rise	668443					184.43	0.01	0.00	185.65
Condo/Townhouse	14110.9					4.10	0.00	0.00	4.13
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	1.25911e+006					366.24	0.02	0.01	368.53
Total						564.77	0.03	0.01	568.31

Mitigated

Land Use	Electricity Use kWh	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Apartment Low Rise	668443					194.43	0.01	0.00	195.65
Condo/Townhouse	14110.9					4.10	0.00	0.00	4.13
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	1.25911e+006					366.24	0.02	0.01	368.53
Total						564.77	0.03	0.01	568.31

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bic- CO2	NBic- CO2	Total CO2	CH4	N2O	CO2e
Mitigated											188.21	444.83	603.03	0.74	0.01	621.21
Unmitigated											158.21	444.83	603.03	0.74	0.01	621.21
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

SubCategory	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											158.21	440.67	598.87	0.74	0.01	616.91
Landscaping											0.00	4.16	4.16	0.01	0.00	4.30
Total											158.21	444.83	603.03	0.75	0.01	621.21

Mitigated

SubCategory	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											158.21	440.67	598.87	0.74	0.01	616.91
Landscaping											0.00	4.16	4.16	0.01	0.00	4.30
Total											158.21	444.83	603.03	0.75	0.01	621.21

7.0 Water Detail

7.1 Mitigation Measures Water

Category	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr.							
	MT/yr.							
Mitigated					49.20	0.68	0.02	68.85
Unmitigated					49.20	0.68	0.02	68.85
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

Land Use	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	Mgal	tons/yr.							
		MT/yr.							
Apartments Low Rise	10,9459 / 6,90066					24.38	0.34	0.01	34.11
Condo/Townhouse	0,200674 / 0,26512					0.45	0.01	0.00	0.63
Other Non-Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00
Single Family Housing	10,9459 / 6,90066					24.38	0.34	0.01	34.11
Total						49.21	0.69	0.02	68.85

Mitigated

Land Use	Indoor/Outdoor Use Mgal	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		tons/yr				MT/yr			
Apartments Low Rise	10,9459 / 6,90096					24.38	0.34	0.01	34.11
Condo/Townhouse	0,200674 / 0,126512					0.45	0.01	0.00	0.63
Other Non-Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00
Single Family Housing	10,9459 / 6,90096					24.38	0.34	0.01	34.11
Total						49.21	0.69	0.02	68.85

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					51.05	3.02	0.00	114.41
Unmitigated					51.05	3.02	0.00	114.41
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

Land Use	Waste Disposed Tons	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		tons/yr				MT/yr			
Apartments Low Rise	77.28					15.69	0.83	0.00	35.16
Condo/Townhouse	1.42					0.29	0.02	0.00	0.65
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Single Family Housing	172.8					35.03	2.07	0.00	78.61
Total						51.05	3.02	0.00	114.42

Mitigated

Land Use	Waste Disposed tons	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		tons/yr				M/yr			
Apartments Low Rise	77.23					15.69	0.93	0.00	35.16
Condo/Townhouse	1.42					0.29	0.02	0.00	0.65
Other Non-Asphalt Surfings	0					0.00	0.00	0.00	0.00
Single Family Housing	172.8					35.08	2.07	0.00	78.61
Total						51.06	3.02	0.00	114.42

9.0 Vegetation

Diamond Oaks VTTM - 2020
Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	168	Dwelling Unit
Apartments Low Rise	168	Dwelling Unit
Condo/Townhouse	3.06	Dwelling Unit
Other Non-Asphalt Surfaces	14.25	Acres

Urbanization: Urban
Climate Zone: 3
Wind Speed (m/s): 2.2
Precipitation Freq (Days): 51
Utility Company: Southern California Edison

1.2 Other Project Characteristics

1.3 User Entered Comments

Project Characteristics - Based on Renewable Portfolio Standard

- Land Use - Based on site plan
- Construction Phase - No construction, only BAU
- Off-road Equipment - New ARB OFFROAD Load Factors
- Off-road Equipment - No construction, only BAU
- Vehicle Trips - Based on Traffic Impact Study
- Vehicle Emission Factors - VRPA Residential Fleet Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	Unmitigated Construction												
	CO ₂	NO _x	CO	SO ₂	PM ₁₀ Exhaust	PM ₁₀ Fugitive	PM ₁₀ Total	PM _{2.5} Exhaust	PM _{2.5} Fugitive	PM _{2.5} Total	CH ₄	N ₂ O	CO _{2e}
2011													
Total	0.00	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 Construction

Year	Mitigated Construction												
	CO ₂	NO _x	CO	SO ₂	PM ₁₀ Exhaust	PM ₁₀ Fugitive	PM ₁₀ Total	PM _{2.5} Exhaust	PM _{2.5} Fugitive	PM _{2.5} Total	CH ₄	N ₂ O	CO _{2e}
2011													
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

Category	Unmitigated Operational												
	CO ₂	NO _x	CO	SO ₂	PM ₁₀ Exhaust	PM ₁₀ Fugitive	PM ₁₀ Total	PM _{2.5} Exhaust	PM _{2.5} Fugitive	PM _{2.5} Total	CH ₄	N ₂ O	CO _{2e}
Ave	155.21	440.87	898.87	0.74	0.01								516.91
Energy	0.00	1,030.84	1,030.84	0.03	0.02								1,032.21
Mobile	0.00	2,711.19	2,711.19	0.13	0.00								2,713.84
Water	\$1.05	0.00	51.05	3.02	0.00								114.41
Waste	0.00	49.20	49.20	0.00	0.00								88.85
Total	297.26	4,231.90	4,441.15	4.89	0.05								4,151.22

Mitigated Operational

Category	t/yr													
	ROG	NOx	CO	SO2	Fugitive PM10	PM10 Total	Fugitive PM2.5	PM2.5 Total	Net CO2	Total CO2	CH4	N2O	CO2e	
Aces									0.00	443.22	443.22	0.01	0.01	445.93
Energy									0.00	806.52	806.52	0.03	0.02	912.13
Mech									0.00	2,328.38	2,328.38	0.12	0.00	2,331.87
Waste									23.53	0.00	23.53	1.31	0.00	57.21
Water									0.00	40.78	40.78	0.54	0.01	56.51
Total									18.53	3,319.90	3,446.43	2.21	0.04	4,053.64

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2011

Unmitigated Construction On-Site

Category	t/yr													
	ROG	NOx	CO	SO2	Fugitive PM10	PM10 Total	Fugitive PM2.5	PM2.5 Total	Net CO2	Total CO2	CH4	N2O	CO2e	
Archit. Coating									0.00	0.00	0.00	0.00	0.00	0.00
Off-Road									0.00	0.00	0.00	0.00	0.00	0.00
Total									0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	t/yr													
	ROG	NOx	CO	SO2	Fugitive PM10	PM10 Total	Fugitive PM2.5	PM2.5 Total	Net CO2	Total CO2	CH4	N2O	CO2e	
Hauling									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
Worker									0.00	0.00	0.00	0.00	0.00	0.00
Total									0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction On-Site

Category	On-Site										MTM			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5	Biogenic CO2	Non-CO2	Total CO2	CH4	N2O	CO2e
Asphalt Paving									0.00	0.00	0.00	0.00	0.00	0.00
Off-Road									0.00	0.00	0.00	0.00	0.00	0.00
Total									0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

Category	Off-Site										MTM			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5	Biogenic CO2	Non-CO2	Total CO2	CH4	N2O	CO2e
Hauling									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
Worker									0.00	0.00	0.00	0.00	0.00	0.00
Total									0.00	0.00	0.00	0.00	0.00	0.00

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

- Increase Density
- Increase Diversity
- Improve Walkability Design
- Improve Destination Accessibility
- Increase Transit Accessibility
- Improve Pedestrian Network

Category	On-Site										Off-Site				MTM			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5	Biogenic CO2	Non-CO2	Total CO2	CH4	N2O	CO2e				
Mitigated									0.00	2,529.38	2,529.38	0.12	0.00	2,531.87				
Unmitigated									0.00	2,711.19	2,711.19	0.13	0.00	2,713.84				
Total	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	
	Weekly	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Apartments Low Rise	1,263.36	1,202.88	1019.76	3,438,630	3,201,355		
Condo/ Townhouse	17.86	22.05	18.70	52,561	48,935		
Other Non-Asphalt Surfaces	0.00	0.00	0.00				
Single Family Housing	1,910.16	1,893.44	1,473.36	5,121,076	4,767,722		
Total	3,191.48	2,918.37	2,511.82	8,612,268	8,018,021		

4.3 Trip Type Information

Land Use	Miles						Trip %	
	H/W or C/W	H/S or C/S	H/D or C/D	H/W or C/W	H/S or C/S	H/D or C/D	H/W or C/W	H/S or C/S
Apartments Low Rise	10.80	7.30	7.50	38.40	22.60	39.00		
Condo/ Townhouse	0.80	7.30	7.50	38.40	22.60	39.00		
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00		
Single Family Housing	10.80	7.30	7.50	38.40	22.60	39.00		

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Category	Energy												
	ROG	NOx	CO	SO2	PM10	PM10 Totals	PM2.5	PM2.5 Totals	PM2.5	PM2.5 Totals	PM2.5	PM2.5 Totals	
Electricity Mitigated													
Electricity													
Unmitigated													
NaturalGas													
Unmitigated													
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	Energy												
	ROG	NOx	CO	SO2	PM10	PM10 Totals	PM2.5	PM2.5 Totals	PM2.5	PM2.5 Totals	PM2.5	PM2.5 Totals	
Unmitigated													
Electricity													
Unmitigated													
NaturalGas													
Unmitigated													
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated

Land Use	Energy												
	ROG	NOx	CO	SO2	PM10	PM10 Totals	PM2.5	PM2.5 Totals	PM2.5	PM2.5 Totals	PM2.5	PM2.5 Totals	
Mitigated													
Electricity													
Mitigated													
NaturalGas													
Mitigated													
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

Land Use	MGal	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr
Apartments Low Rise	6,945.97					24.38	0.34	0.01	34.11
Condo/Apartment	6,200.82					0.45	0.01	0.00	0.63
Other Non-Asphalt	6,176.51					0.00	0.00	0.00	0.00
Single Family	10,949.7					24.38	0.34	0.01	34.11
Total	6,300.00					49.21	0.69	0.02	64.83

Mitigated

Land Use	MGal	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr
Apartments Low Rise	6,748.7					20.20	0.27	0.01	28.00
Condo/Apartment	6,160.84					0.37	0.00	0.00	0.51
Other Non-Asphalt	6,176.51					0.00	0.00	0.00	0.00
Single Family	9,787.7					20.20	0.27	0.01	28.00
Total	6,300.00					40.77	0.54	0.02	58.81

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

Category/Year	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr
Mitigated	25.53	1.51	0.00	0.00	37.21			
Unmitigated	51.05	3.02	0.00	0.00	114.41			
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

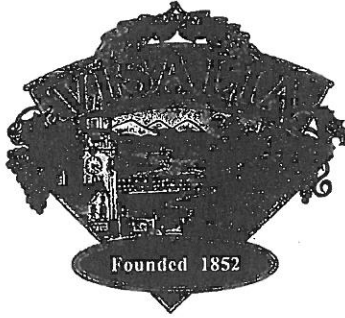
Unmitigated

Land Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr	lb/yr
Apartments Low Rise	77.28				18.69	0.93	0.00	35.16
Condo/Apartment	1.42				0.29	0.02	0.00	0.85
Other Non-Asphalt	0				0.00	0.00	0.00	0.00
Single Family	172.8				35.08	2.07	0.00	78.81
Total					51.05	3.02	0.00	114.41

Mitigated

	Waste Disposal	RDC	NOx	CO	CO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons	tons	tons	tons	tons	tons	tons	tons
Asphalt/Low	38.84					7.84	0.46	0.00	17.28
Concrete	0.71					0.14	0.01	0.00	0.32
Other Non-Asphalt	0					0.00	0.00	0.00	0.00
Single Family	86.4					17.74	1.24	0.00	39.00
Total						34.82	1.81	0.00	67.30

9.0 Vegetation



MEETING DATE 5/16/2012
SITE PLAN NO. 12-025
PARCEL MAP NO.
SUBDIVISION
LOT LINE ADJUSTMENT NO.

Enclosed for your review are the comments and decisions of the Site Plan Review committee. Please review all comments since they may impact your project.

RESUBMIT Major changes to your plans are required. Prior to accepting construction drawings for building permit, your project must return to the Site Plan Review Committee for review of the revised plans.

- During site plan design/policy concerns were identified, schedule a meeting with
- Planning Engineering prior to resubmittal plans for Site Plan Review.
- Solid Waste Parks and Recreation Fire Dept.

REVISE AND PROCEED (see below)

A revised plan addressing the Committee comments and revisions must be submitted for Off-Agenda Review and approval prior to submitting for building permits or discretionary actions.

Submit plans for a building permit between the hours of 8:30 a.m. and 4:30 p.m., Monday through Friday.

Your plans must be reviewed by:

- | | |
|---|--|
| <input type="checkbox"/> CITY COUNCIL | <input type="checkbox"/> REDEVELOPMENT |
| <input checked="" type="checkbox"/> PLANNING COMMISSION | <input type="checkbox"/> PARK/RECREATION |
| <input type="checkbox"/> HISTORIC PRESERVATION | <input type="checkbox"/> OTHER _____ |

ADDITIONAL COMMENTS This project requires a Vesting Tentative Parcel Map.

If you have any questions or comments, please call Jason Huckleberry at (559) 713-4259.

Site Plan Review Committee



Building Site Plan Review Comments

ITEM NO: 4

DATE: May 16, 2012

SITE PLAN NO:
PROJECT TITLE:
DESCRIPTION:
APPLICANT:
PROP OWNER:
LOCATION:
APN(S):

SPR12025 **RESUBMIT**
DIAMOND OAKS VESTING SUBDIVISION MAP
VESTING TENTATIVE SUBDIVISION MAP TO
CREATE 179 LOTS ON 56.7 ACRES (REFER 10-061)
LANE ENGINEERS INC
DIAMOND OAKS L P
901 E CALDWELL AVE
126-100-012

NOTE:

These are general comments and DO NOT constitute a complete plan check for your specific project. Please refer to the applicable California Code & local ordinance for additional requirements.

- Submit 3 sets of engineered plans and 2 sets of calculations.
- Indicate abandoned wells, septic systems and excavations on construction plans.
- Meet State and Federal requirements for accessibility for persons with disabilities.
- Submit 3 sets of plans signed by an architect or engineer. Must comply with 2010 California Building Code Sec. 2308 for conventional light-frame construction or submit 2 sets of engineered calculations.
- Maintain sound transmission control between units minimum of 50 STC.
- Maintain fire-resistive requirements at property lines.
- Obtain required permits from San Joaquin Valley Air Pollution Board.
- Location of cashier must provide clear view of gas pump island
- Calculations of free-standing carport.
- Treatment connection charge to be assessed based on use. Credits _____
- Must comply with state energy requirements.
- Plans must be approved by the Tulare County Health Department.
- A path of travel, parking and common area must comply with requirements for access for persons with disabilities.
- Project is located in flood zone _____ * A building permit will be required
- All accessible units required to be adaptable for the physically handicapped.
- Acceptable as submitted Arrange for an on-site inspection.
- Hazardous materials report. A demolition permit & deposit is required.
- School Development fees. Commercial \$0.47 per square foot. Residential \$2.97 per square foot.
- Park Development fee \$ _____ per unit collected with building permits.
- Existing address must be changed to be consistent with city address policy.

Permit for Block Fencing.

Signature

Site Plan Review Comments For:


Visalia Fire Department
Kurtis Brown, Senior Fire Inspector
707 W Acequia
Visalia, CA 93291
559-713-4261 *office*
559-713-4808 *fax*

ITEM NO: 4	DATE: <u>May 16, 2012</u>
SITE PLAN NO: SPR12025	RESUBMIT
PROJECT TITLE: DIAMOND OAKS VESTING SUBDIVISION MAP	
DESCRIPTION: VESTING TENTATIVE SUBDIVISION MAP TO CREATE 179 LOTS ON 56.7 ACRES (REFER 10-061)	
APPLICANT: LANE ENGINEERS INC	
PROP OWNER: DIAMOND OAKS L P	
LOCATION: 901 E CALDWELL AVE	
APN(S): 126-100-012	

The following comments are applicable when checked:

- Refer to previous comments dated 2-08-2012.
- More information is needed before a Site Plan Review can be conducted. Please submit plans with more detail.
- The Site Plan Review comments in this document are not all encompassing, but a general overview of the California Fire Code, and City of Visalia Municipal Codes. Additional requirements may come during the plan review process.
- No fire protection items required for parcel map or lot line adjustment; however, any future projects will be subject to fire protection requirements.
- Address numbers must be placed on the exterior of the building in such a position as to clearly and plainly visible from the street. Numbers will be at least six inches (6") high and shall be of a color to contrast with their background. If multiple addresses served by a common driveway, the range of numbers shall be posted at the roadway/driveway.
- No additional fire hydrants are required for this project; however, additional fire hydrants may be required for any future development.
- There is/are 15 fire hydrants required for this project.
- The turning radius for emergency fire apparatus is 20 feet inside radius and 43 feet outside radius. Ensure that the turns identified to you during site plan comply with the requirements. An option is a hammer-head constructed to City standards.
- An access road is required and shall be a minimum of 20 feet wide. The road shall be an all-weather driving surface accessible prior to and during construction.
- Buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with an approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders. Access routes shall be located within a minimum of 15 feet and maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building.

- A fire lane is required for this project. The location will be given to you during the site plan meeting.
- A Knox Box key lock system is required. Applications are available at the Fire Department Administrative Office.
- The security gates, if to be locked, shall be locked with a typical chain and lock that can be cut with a common bolt cutter, or the developer may opt to provide a Knox Box key lock system. Applications are available at the Fire Department Administrative Office.
- That portion of the building that is built upon a property line shall be constructed as to comply with Section 503.4 and Table 5-A of the California Building Code.
- Commercial dumpsters with 1.5 cubic yards or more shall not be stored or placed within 5 feet of combustible walls, openings, or a combustible roof eave line except when protected by a fire sprinkler system.
- If you handle hazardous material in amounts that exceed the exempt amounts listed on Table 3-D of the California Building Code, you are required to submit an emergency response plan to the Tulare County Health Department. Prior to the building final inspection, we will want a copy of the plan and any Material Safety Data Sheets.
- An automatic fire sprinkler system will be required for this building. A fire hydrant is required within 50 feet of the fire department connection. The fire hydrant, fire department connection and the PIV valve should be located together and minimum 25' from the building, if possible. The caps on the FDC shall be Knox locking caps.
- An automatic fire extinguishing system for protection of the kitchen grease hood and ducts is required.
- Fire Department Impact Fee - \$1433.90 per acre.
- Fire Department Permit Fee - complete application during Building Department permit process.
- Special comments:


Kurtis Brown, Senior Fire Inspector

SITE PLAN REVIEW COMMENTS

Paul Bernal, Planning Division (559) 713-4025

Date: May 16, 2012

SITE PLAN NO: 12-025 RESBUMITTAL
PROJECT: DIAMOND OAKS VESTING SUBDIVISION MAP
VESTING TENTATIVE SUBDIVISION MAP TO CREATE 179 LOTS ON 56.7
ACRES (REFER 10-061) (R-1-6 ZONED)
APPLICANT: LANE ENGINEERING INC
PROP. OWNER: DIAMOND OAKS LP
LOCATION TITLE: 901 E CALDWELL AVE
APN TITLE: 126-100-012

General Plan: RLD – (Residential Low Density)
Existing Zoning: R-1-6 – (Single-Family Residential 6,000 sq. ft. min. site area)

Planning Division Recommendation:

- Revise and Proceed (Off Agenda for Revised Sewer Study & Phasing Plan)
 Resubmit

Project Requirements

- Vesting Tentative Subdivision Map
- Conditional Use Permit for Planned Residential Development
- Traffic Impact Study

PROJECT SPECIFIC INFORMATION: 05/16/2012

Following items need to be depicted on Subdivision Map

1. Comply with previous comments from the February 08, 2012, Site Plan Review meeting.
2. Depict sewer lines on the Vesting Tentative Map.
3. Staff recommends that the Oak Tree issues be resolved as stated by David Pendergraft. This would include a Certified Arborist evaluation be performed on all of these trees before the subdivision plan is accepted. Some may be dead, split and hollow, but a resistograph test and root crown excavation of these trees will reveal more issues that may arise with these trees. If they are diseased or have the potential to fail, this would be the appropriate time to remove diseased oak trees. Once the evaluations have been done, removal permits can be applied for and trees that are to remain can be pruned up and safety balanced.
4. Caldwell frontage improvements shall be addressed prior to submittal of any application entitlements. This meeting with Engineering staff shall be used to identify how much of the Caldwell Avenue frontage improvements will be completed under each phase.
5. Phasing Plan shall be reviewed internally to determine if the Phase Plan is agreeable to staff.

Following Items need to be provided for the Planned Residential Development

1. Comply with previous comments from the February 08, 2012, Site Plan Review meeting.
2. Identify setbacks for the multi-family lots located along Burke Street.
3. Provide typical lot development patterns for all multi-family lots.
4. Contact the Parks and Recreation Department Director to discuss Parks and Recreation request to plan a 3 to 4 acre park in this subdivision. This issue shall be resolved prior to submittal of any application entitlements.

PREVIOUS COMMENTS

PROJECT SPECIFIC INFORMATION: 02/08/2012

Following items need to be depicted on Subdivision Map

1. Label the Vesting Tentative Subdivision Map as a "Planned Residential Development".
2. Provide net area density for the R-1-6, R-M-2 & R-M-3 zones.
3. Identify purpose of Out Lots (i.e., Landscape and Lighting Lots).
4. Label the block walls along the major streets. The block walls will be required to along the side property lines of Lots 1, 13, & 14.
5. Depict phasing of this subdivision.
6. Circulation Element – The Ben Maddox Way alignment is being considered for a change in the final Plan wherein it will follow the Element alignment going south along this site, see Engineering comments for alignment details. In addition, the future Avenue 276 alignment may also be revised to go through the Plan area east to west, though this site does not contain a portion of Ave. 276. The potential for Ben Maddox Way going south may cause the elimination of one of the TID crossings shown in this plan.

Following Items need to be provided for the Planned Residential Development

1. The site plan for the Planned Residential Development shall depict typical lot patterns.
2. Smaller lots (i.e., less than 5,000 sq. ft.) shall have paired driveways. This allows for additional street parking across the frontage of the smaller lots. Depict this layout on the site plan.
3. Provide typical lot development patterns for all multi-family lots.
4. Good neighborhood policies are required for the multi-family lots and will be incorporated as conditions of project approval for the Conditional Use Permit for the Planned Residential Development.
5. Identify ingress/egress for the multi-family lots 176, 177, 178 & 179.
6. Depict improvements for the corner lots.
7. Depict improvement associated with Out Lot E.
8. Elevations for the multi-family are going to be required with the submittal of the CUP application.
9. The multi-family may require subsequent SPR and/or amending the PRD CUP if changed or modified.
10. Cross-access agreements are required for the multi-family residential development.

CITY GENERAL PLAN CONSISTENCY

Staff initial finding is that the proposed site plan IS CONSISTENT with the City General Plan. Because this project requires discretionary approval by the City Council and/or Planning Commission the final determination of consistency will be made by the Planning Commission and/or City Council.

R-1-6 Single Family Residential Zone [17.12]

Maximum Building Height: 35 Feet

Minimum Setbacks:

	Building	Landscaping
➤ Front	15 Feet	15 Feet
➤ Front Garage (garage w/door to street)	22 Feet	22 Feet
➤ Side	5 Feet	5 Feet
➤ Street side on corner lot	10 Feet	10 Feet
➤ Rear	25 Feet*	25 Feet

Minimum Site Area: 6,000 square feet

Accessory Structures:

Maximum Height: 12 feet (as measured from average grade next to the structure)

Maximum Coverage: 20% of required Rear Yard (last 25 feet by the width)

Reverse Corner Lots: No structure in the 25 feet of adjacent lot's front yard area, see Zoning Ordinance Section 17.12.100 for complete standards and requirements.

Parking:

1. Provide parking per the following:
 - Two covered spaces for the single-family residential development.
 - 1.5 parking spaces per unit for the multi-family residential development. Depict the location of covered parking spaces.
2. 30% of the required parking stalls may be compact and shall be evenly distributed in the lot (Zoning Ordinance Section 17.34.030.I).
3. Provide handicapped space(s) for the multi-family development (see Zoning Ordinance Section 17.34.030.H).
4. An 80 sq. ft. minimum landscape well is required every 10 contiguous parking stalls (Zoning Ordinance Section 17.34.040.D & 17.30.130.C).
5. No parking shall be permitted in a required front/rear/side yard (Zoning Ordinance Section 17.34.030.F).
6. Design/locate parking lot lighting to deflect any glare away from abutting residential areas, calculations to be shown on construction documents (Zoning Ordinance Section 17.34.030.J).

Fencing and Screening:

1. Provide screening for roof mounted equipment (Zoning Ordinance Section 17.30.130.F).
2. Provide second-story screening for all windows that may intrude into adjacent residential properties. Details and cross-sections will be required to be reviewed and approved prior to issuance of building permits (Zoning Ordinance Section 17.30.130.F).
3. Provide screened trash enclosure with solid screening gates (Zoning Ordinance Section 17.30.130.F).
4. Provide minimum of seven-foot high concrete block wall or masonry wall along the major streets (i.e., Caldwell Avenue and Ben Maddox Way)
5. If there is an anticipated grade difference of more than 12-inches between this site and the adjacent sites, a cross section of the difference and the walls must be provided as a part of the Subdivision and/or CUP application package.
6. NOTE: The maximum height of block walls and fences is 7-feet in the appropriate areas; this height is measured on the tallest side of the fence. If the height difference is such that the fence on the inside of the project site is not of sufficient height, the fence height should be discussed with Planning Staff prior to the filing of applications to determine if an Exception to fence/wall height should also be submitted.

Landscaping:

1. On September 30, 2009, the State Model Water Efficient Landscape Ordinance (MWELo) was finalized by the State Department of Water Resources to comply with AB 1881. AB 1881 along with the MWELo became effective on January 1, 2010. As of January 1, 2010, the State Model Water Efficient Landscape Ordinance became effective by adoption of a City urgency ordinance on December 21, 2009. The ordinance applies to projects installing 2,500 square feet or more of landscaping. It requires that landscaping and irrigation plans be certified by a qualified entity (i.e., Landscape Architect) as meeting the State water conservation requirements. The City's implementation of this new State law will be accomplished by self-certification of the final landscape and irrigation plans by a California licensed landscape architect or other qualified entity with sections signed by appropriately licensed or certified persons as required by the ordinance.
2. Provide street trees at an average of 20-feet on center along street frontages. All trees to be 15-gallon minimum size (Zoning Ordinance Section 17.30.130.C).
3. In the P(R-M) multi-family residential zone, all multiple family developments shall have landscaping including plants, and ground cover to be consistent with surrounding landscaping in the vicinity.

Landscape plans to be approved by city staff prior to installation and occupancy of use and such landscaping to be permanently maintained. (Zoning Ordinance Section 17.16.180)

4. All landscape areas to be protected with 6-inch concrete curbs (Zoning Ordinance Section 17.30.130.F).
5. All parking lots to be designed to provide a tree canopy to provide shade in the hot seasons and sunlight in the winter months.
6. Provide a detailed landscape and irrigation plan as a part of the building permit package (Zoning Ordinance Section 17.34.040).
7. An 80 sq. ft. minimum landscape well is required every 10 contiguous parking stalls (Zoning Ordinance Section 17.30.130.C).
8. Provide a detailed landscape and irrigation plan for review prior to issuance of building permits. Please review Zoning Ordinance section 17.30.130-C for current landscaping and irrigation requirements.
9. Provide a conceptual landscape plan for resubmittal or planning commission review.
10. Locate existing oak trees on site and provide protection for all oak trees greater than 2" diameter (see Oak Tree Preservation Ordinance).

Maintenance of landscaped areas. - A landscaped area provided in compliance with the regulations prescribed in this title or as a condition of a use permit or variance shall be planted with materials suitable for screening or ornamenting the site, whichever is appropriate, and plant materials shall be maintained and replaced as needed, to screen or ornament the site. (Prior code § 7484)

Lighting:

1. All lighting is to be designed and installed so as to prevent any significant direct or indirect light or glare from falling upon any adjacent residential property. This will need to be demonstrated in the building plans and prior to final on the site.
2. Parking lot and drive aisle lighting adjacent to residential units or designated property should consider the use of 15-foot high light poles, with the light element to be completely recessed into the can. A reduction in the height of the light pole will assist in the reduction/elimination of direct and indirect light and glare which may adversely impact adjacent residential areas.
3. Building and security lights need to be shielded so that the light element is not visible from the adjacent residential properties, if any new lights are added or existing lights relocated.
4. NOTE: Failure to meet these lighting standards in the field will result in no occupancy for the building until the standards are met.
5. In no case shall more than 0.5 lumens be exceeded at any property line, and in cases where the adjacent residential unit is very close to the property line, 0.5 lumens may not be acceptable.

San Joaquin Valley Air Pollution Control District (SJVAPCD)

Please note that the project is subject to SJVAPCD Rule 9510. The applicant is encouraged to do early indirect source modeling consultation with the Air District (please see http://www.aqmd.gov/rules/proposed/2301/sjvapcd_rule9510.pdf).

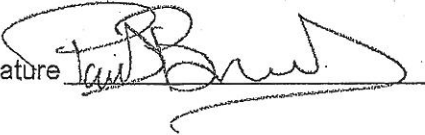
Open Space: 17.16.150 Open Space and recreational areas.

In the P(R-M) multi-family residential zone, any multiple family project approved under a conditional use permit shall include , open, common, usable space and/or recreational facilities for use by tenants as a part of that plan. The specific size, location and use shall be approved as a part of the conditional use permit. (Ord. 9717 § 2 (part), 1997: prior code § 7305)

Provide Open Space Calculations of the Site Plan. Minimum 5% common usable open space amenities are required.

The comments found on this document pertain to the site plan submitted for review on the above referenced date. Any changes made to the plan submitted must be submitted for additional review.

NOTE: Staff recommendations contained in this document are not to be considered support for a particular action or project unless otherwise stated in the comments.

Signature 

Paul Bernal

From: Vince Elizondo
Sent: Monday, May 14, 2012 4:21 PM
To: Paul Bernal
Cc: Vaughn Melcher; Greg Adams
Subject: Site Plan review - City Comments (5.16.12 agenda)
Attachments: Vincent A Elizondo.vcf

Hi Paul:

I hope you're the right person to submit internal staff comments to for the 5.16.12 site plan agenda review:

SPR12076: RV Express

1. Should we require a trail or access through the retention basin for the future Goshen Avenue Trail? That's really a question for Vaughn; not sure how the future trail will work within this area?
2. Can we mandate appropriate landscaping (screening) for the retention basin as opposed to a big vacant hole?
3. Appropriate ADA sidewalks in the City right of way?

SPR12025: Diamond Oaks Vesting Subdivision

1. Would this area be a good candidate for a small 3-4 acre neighborhood park? Future park demand will require a neighborhood park within the quadrant that includes Caldwell to the north; Santa Fe to the west; Ave. 272 to the south; and Lovers Lane to the east. Based on 179 units and over 600 people in this new development when built out, how will the property owners mitigate the impacts of future park needs? Based on 179 units, this development will have somewhere between \$500,000 - \$600,000 in park impact fees. City could negotiate fee credits towards some property. Park site should be located at the southern end of the project adjacent to TDIC waterway.
2. Appropriate ADA sidewalks and wide sidewalks to facilitate a walkable community!
3. Perhaps a permanent park basin/park concept could be developed? Why would a storm pond be temporary?

SPR12107: Mainland Warehouse

1. Is there an opportunity to improve the existing ponding basin?
2. Appropriate ADA sidewalks.

Respectfully,

Vincent A. Elizondo

Site Plan Review #12-025
May 16, 2012
Urban Forestry, City of Visalia

The resubmittal for the Diamond Oaks Vesting Tentative Subdivision Map has come through Site Plan #12-025.

- There are 13 fairly large valley oaks shown on the plans on the Burke St. alignment and TID canal. Some of the trees are labeled as dead or leaning.
- I would advise Lane Engineers that it would be recommended that a Certified Arborist evaluation be performed on all of these trees before the subdivision plan is accepted.
- Some may be dead, split and hollow, but a resistograph test and root crown excavation of these trees will reveal more issues that may arise with these trees.

If they are diseased or have the potential to fail, now is the time to get them removed. Once the evaluations have been done, removal permits can be applied for and trees that are to remain can be pruned up and safety balanced.

David Pendergraft
Urban Forestry Supervisor
City of Visalia

SITE PLAN REVIEW COMMENTS

CITY OF VISALIA TRAFFIC SAFETY DIVISION

ITEM NO: 4	RESUBMTL
SITE PLAN NO:	SPR12025
PROJECT TITLE:	DIAMOND OAKS VESTING SUBDIVISION MAP
DESCRIPTION:	VESTING TENTATIVE SUBDIVISION MAP TO CREATE 179 LOTS ON 56.7 ACRES (REFER 10-061)
APPLICANT:	LANE ENGINEERS INC
PROP. OWNER:	DIAMOND OAKS L P
LOCATION:	901 E CALDWELL AVE
APN(S):	126-100-012

THE TRAFFIC DIVISION WILL PROHIBIT ON-STREET PARKING AS DEEMED NECESSARY

- No Comments
- See Previous Site Plan Comments
- Install Street Light(s) per City Standards.
- Install Street Name Blades at Locations.
- Install Stop Signs at Locations.
- Construct parking per City Standards PK-1 through PK-4.
- Construct drive approach per City Standards.
- Traffic Impact Study required.
-

Additional Comments:



Eric Bons

SITE PLAN REVIEW COMMENTS

CITY OF VISALIA TRAFFIC SAFETY DIVISION

<input checked="" type="checkbox"/>	Eric Bons	713-4350
<input type="checkbox"/>		
<input type="checkbox"/>		

ITEM NO: 4
SITE PLAN NO: SPR12025
PROJECT TITLE: DIAMOND OAKS VESTING SUBDIVISION MAP
DESCRIPTION: VESTING TENTATIVE SUBDIVISION MAP TO CREATE 179 LOTS ON 66.7 ACRES (REFER 10-061)
APPLICANT: LANE ENGINEERS INC
PROP. OWNER: DIAMOND OAKS L P
LOCATION: 901 E CALDWELL AVE
APN(S): 126-100-012

THE TRAFFIC DIVISION WILL PROHIBIT ON-STREET PARKING AS DEEMED NECESSARY

- No Comments
- See Previous Site Plan Comments
- Install (*per City Standards*) Street Light(s) on Marbelite Standards.
- Install Street Name Blades at *each intersection*.
- Install Stop Signs at *all streets intersecting with Caldwell Avenue, Ben Maddox, Burke Street .and other internal locations as designated by the City of Visalia. .*
- Construct parking per City Standards PK-1 through PK-4.
- Construct drive approach per City Standards.
- Traffic Impact Study required.

Additional Comments:

Traffic impact study required for the intersection of Burke Street and Caldwell Avenue to determine if additional traffic control measures are needed for this intersection (possible traffic signal).

Reconfigure the internal street alignments to minimize the long straight runs. This is an attempt to minimize future operational issues.

Show proposed improvements for Caldwell Avenue. Edison Street at Caldwell Avenue shall be restricted to a right-in and right-out turns from Caldwell Avenue.

The proposed roadway cross section of 30 feet from curb to curb will require one side of the roadway to have restricted parking. The developer shall designate the one side of the roadway to have restricted parking.

Eric Bons

CITY OF VISALIA
SOLID WASTE DIVISION
336 N. BEN MADDOX
VISALIA CA. 93291
713 - 4500

COMMERCIAL BIN SERVICE

DATE: MAY 10, 2012
SITE PLAN NO: SPR12025 RESUBMIT
PROJECT TITLE: DIAMOND OAKS VESTING SUBDIVISION MAP
DESCRIPTION: VESTING TENTATIVE SUBDIVISION MAP TO
CREATE 179 LOTS ON 56.7 ACRES (REFER 10-061)
APPLICANT: LANE ENGINEERS INC
PROP OWNER: DIAMOND OAKS L P
LOCATION: 901 E CALDWELL AVE
APN(S): 126-100-012

No comments.

Same comments as as

Revisions required prior to submitting final plans. See comments below.

Resubmittal required. See comments below.

Customer responsible for all cardboard and other bulky recyclables to be broken down
before disposing of in recycle containers.

ALL refuse enclosures must be R-3 or R-4

Customer must provide combination or keys for access to locked gates/bins

Type of refuse service not indicated.

Location of bin enclosure not acceptable. See comments below.

Bin enclosure not to city standards double.

Inadequate number of bins to provide sufficient service. See comments below.

Drive approach too narrow for refuse trucks access. See comments below.

Area not adequate for allowing refuse truck turning radius of :
Commercial (X) 50 ft. outside 36 ft. inside; Residential () 35 ft. outside, 20 ft. inside.

Paved areas should be engineered to withstand a 55,000 lb. refuse truck.

Bin enclosure gates are required

Hammerhead turnaround must be built per city standards.

Cul - de - sac must be built per city standards.

Bin enclosures are for city refuse containers only. Grease drums or any other
items are not allowed to be stored inside bin enclosures.

Area in front of refuse enclosure must be marked off indicating no parking

Enclosure will have to be designed and located for a STAB service (DIRECT ACCESS)

Customer will be required to roll container out to curb for service.

Must be a concrete slab in front of enclosure as per city standards

The width of the enclosure by ten(10) feet, minimum of six(6) inches in depth.

Roll off compactor's must have a clearance of 3 feet from any wall on both sides and there must be a minimum of 53 feet clearance in front of the compactor to allow the truck enough room to provide service.

Bin enclosure gates must open 180 degrees and also hinges must be mounted in front of post see page 2 for instructions

NEW SU BDIVISION WILL HAVE CAN CURBSIDE SERVICE

Javier Hernandez, Solid Waste Front Load Supervisor 713-4338

**SUBDIVISION & PARCEL MAP
REQUIREMENTS
ENGINEERING DIVISION**

Jason Huckleberry 713-4259
 Ken McSheehy 713-4447
 Adrian Rubalcaba 713-4164

ITEM NO: 4 DATE: May 16, 2012

SITE PLAN NO.: 12-025R
PROJECT TITLE: DIAMOND OAKS VESTING SUBDIVISION MAP
DESCRIPTION: VESTING TENTATIVE SUBDIVISION MAP TO
CREATE 179 LOTS ON 56.7 ACRES(REFER 10-
061)
APPLICANT: LANE ENGINEERS INC
PROP. OWNER: DIAMOND OAKS LP
LOCATION: 901 E CALDWELL AVE
APN: 126-100-012

SITE PLAN REVIEW COMMENTS

- REQUIREMENTS (Indicated by checked boxes)**
- Submit improvements plans detailing all proposed work; Subdivision Agreement will detail fees & bonding requirements
 - Bonds, certificate of insurance, cash payment of fees/inspection, and approved map & plan required prior to approval of Final Map
 - The Final Map & Improvements shall conform to the Subdivision Map Act, the City's Subdivision Ordinance and Standard Improvements.
 - A preconstruction conference is required prior to the start of any construction.
 - Right-of-way dedication required. A title report is required for verification of ownership. by map by deed
 - City Encroachment Permit Required which shall include an approved traffic control plan.
 - CalTrans Encroachment Permit Required. CalTrans comments required prior to tentative parcel map approval. CalTrans contacts: David Deel (planning) 488-4088
 - Landscape & Lighting District/Home Owners Association required prior to approval of Final Map. Landscape & Lighting District will maintain common area landscaping, street lights, street trees and local streets as applicable. Submit completed Landscape and Lighting District application and filing fee a min. of 75 days before approval of Final Map. Contact Doug Damko, 713-4268, 315 E. Acequia Ave.
 - Landscape & irrigation improvement plans to be submitted for each phase. Landscape plans will need to comply with the City's street tree ordinance. The locations of street trees near intersections will need to comply with Plate SD-1 of the City improvement standards. A street tree and landscape master plan for all phases of the subdivision will need to be submitted with the initial phase to assist City staff in the formation of the landscape and lighting assessment district.
 - Dedicate landscape lots to the City that are to be maintained by the Landscape & Lighting District.
 - Northeast Specific Plan Area: Application for annexation into Northeast District required 75 days prior to Final Map approval.
 - Written comments required from ditch company. Contacts: James Silva 747-1177 for Modoc, Persian, Watson, Oakes, Flemming, Evans Ditch and Peoples Ditches; Paul Hendrix 686-3425 for Tulare Irrigation Canal, Packwood and Cameron Creeks; Bruce George 747-5601 for Mill Creek and St. John's River.
 - Final Map & Improvements shall conform to the City's Waterways Policy. Access required on ditch bank, 12' minimum. Provide _____ wide riparian dedication from top of bank.
 - Sanitary Sewer master plan for the entire development shall be submitted for approval prior to approval of any portion of the system. The sewer system will need to be extended to the boundaries of the development where future connection and extension is anticipated. The sewer system will need to be sized to serve any future developments that are anticipated to connect to the system.
 - Grading & Drainage plan required. If the project is phased, then a master plan is required for the entire project area that shall include pipe network sizing and grades and street grades. Prepared by registered civil engineer or project architect. All elevations shall be based on the City's benchmark network. Storm run-off from the project shall be handled as follows: a) directed to the City's existing storm drainage system; b) directed to a permanent on-site basin; or c) directed to a temporary on-site basin is required until a connection with adequate capacity is available to the City's storm drainage system. On-site

basin: ; maximum side slopes, perimeter fencing required, provide access ramp to bottom for maintenance.

- Show Oak trees with drip lines and adjacent grade elevations. Protect Oak trees during construction in accordance with City requirements. A permit is required to remove oak trees. The City will evaluate Oak trees with removal permit applications. Oak tree evaluations by a certified arborist are required to be submitted to the City in conjunction with the tentative map application. A pre-construction conference is required. Contact: David Pendergraft, City Arborist, 713-4295
- Show adjacent property grade elevations on improvement plans. A retaining wall will be required for grade differences greater than 0.5 feet at the property line.
- Relocate existing utility poles and/or facilities.
- Underground all existing overhead utilities within the project limits. Existing overhead electrical lines over 50kV shall be exempt from undergrounding.
- Provide "R" value tests: each at
- Traffic indexes per city standards:
- All public streets within the project limits and across the project frontage shall be improved to their full width, subject to available right of way, in accordance with City policies, standards and specifications.
- All lots shall have separate drive approaches constructed to City Standards.
- Install street striping as required by the City Engineer.
- Install sidewalk: 5 ft. wide, with ft. wide parkway on
- Cluster mailbox supports required at 1 per 2 lots, or use postal unit (contact the Postmaster at 732-8073)
- Subject to existing Reimbursement Agreement to reimburse prior developer:
- Abandon existing wells per City of Visalia Code. A building permit is required.
- Remove existing irrigation lines & dispose off-site. Remove existing leach fields and septic tanks.
- Fugitive dust will be controlled in accordance with the applicable rules of San Joaquin Valley Air District's Regulation VIII. Copies of any required permits will be provided to the City.
- If the project requires discretionary approval from the City, it may be subject to the San Joaquin Valley Air District's Rule 9510 Indirect Source Review per the rule's applicability criteria. A copy of the approved AIA application will be provided to the City.
- If the project meets the one acre of disturbance criteria of the State's Storm Water Program, then coverage under General Permit Order 2009-0009-DWQ is required and a Storm Water Pollution Prevention Plan (SWPPP) is needed. A copy of the approved permit and the SWPPP will be provided to the City.

Comply with prior comments Resubmit with additional information Redesign required

Additional Comments:

Prior Site Plans 08-146 & 10-061

1.) Meet Vesting requirements as outlined in the City's Subdivision Ordinance. At a minimum, Engineering will require existing and proposed sanitary sewer and storm drain infrastructure to be shown on the map. These additions may be submitted as "off-agenda" prior to submitting for Planning Commission approval.

2.) In order for the Engineering Division to adequately define improvements that will be required with each phase of the proposed development, please detail the proposed phasing of the project. Submit this plan as "off-agenda" prior to submitting for Planning Commission approval. Phasing plan may initiate additional comments.

3.) A sanitary sewer master plan for the subdivision has been provided, including a study detailing the capacity in the Caldwell Ave sewer line after full build out of the service area. The service area being Santa Fe to Lovers Lane & Caldwell to 'K' Road. However, the study references commercial lots along the northerly boundary of this development. Study needs to be revised to reflect the multi-family units now being proposed along Caldwell Ave. Submit revised study as "off agenda" submittal.

Additional requirements for a future trunk line at the southerly end of this development may be necessary.

4.) City Storm Drain Master Plan has master plan line in Ben Maddox flowing south to a basin next to Cameron Creek. Site needs to be plumbed to meet the requirement, including the provisions for future storm drain extension and elimination of the temporary basin.

5.) Details on the proposed median and turn pockets on Caldwell at Burke & Ben Maddox are shown with this project. These improvements may be necessary depending upon information obtained during the traffic impact study to be required by City Traffic Engineer. The proposed drive midpoint between Burke and Ben Maddox will be right in/right out only, no median break in Caldwell.

6.) Refer to comments from City of Visalia Traffic Engineer concerning a required traffic impact study, as well as the potential signalization of the Burke St & Caldwell intersection.

SUMMARY OF APPLICABLE DEVELOPMENT IMPACT FEES

Site Plan No: 12-025
Date: 5/16/12

Summary of applicable Development Impact Fees to be collected at the time of final/parcel map recordation:

(Preliminary estimate only! Final fees will be based on approved subdivision map & improvements plans and the fee schedule in effect at the time of recordation.)

(Fee Schedule Date:8/19/11)
(Project type for fee rates:Single Family & Multi Family Residential)

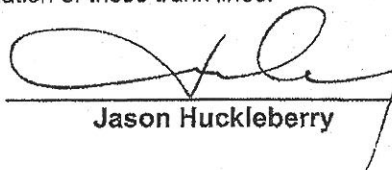
Existing uses may qualify for credits on Development Impact Fees.

FEE ITEM	FEE RATE
<input checked="" type="checkbox"/> Trunk Line Capacity Fee	
<input checked="" type="checkbox"/> Sewer Front Foot Fee	
<input checked="" type="checkbox"/> Storm Drainage Acquisition Fee	
<input checked="" type="checkbox"/> Park Acquisition Fee	
<input type="checkbox"/> Northeast Acquisition Fee Total	
Storm Drainage	
Block Walls	
Parkway Landscaping	
Bike Paths	
<input checked="" type="checkbox"/> Waterways Acquisition Fee	

Additional Development Impact Fees will be collected at the time of issuance of building permits.

City Reimbursement:

- 1.) No reimbursement shall be made except as provided in a written reimbursement agreement between the City and the developer entered into prior to commencement of construction of the subject planned facilities.
- 2.) Reimbursement is available for the development of arterial/collector streets as shown in the City's Circulation Element and funded in the City's transportation impact fee program. The developer will be reimbursed for construction costs and right of way dedications as outlined in Municipal Code Section 16.44. Reimbursement unit costs will be subject to those unit costs utilized as the basis for the transportation impact fee.
- 3.) Reimbursement is available for the construction of storm drain trunk lines and sanitary sewer trunk lines shown in the City's Storm Water Master Plan and Sanitary Sewer System Master Plan. The developer will be reimbursed for construction costs associated with the installation of these trunk lines.



Jason Huckleberry

Site Plan Review #12-025
May 16, 2012
Urban Forestry, City of Visalia

The resubmittal for the Diamond Oaks Vesting Tentative Subdivision Map has come through Site Plan #12-025.

- There are 13 fairly large valley oaks shown on the plans on the Burke St. alignment and TID canal. Some of the trees are labeled as dead or leaning.
- I would advise Lane Engineers that it would be recommended that a Certified Arborist evaluation be performed on all of these trees before the subdivision plan is accepted.
- Some may be dead, split and hollow, but a resistograph test and root crown excavation of these trees will reveal more issues that may arise with these trees.

If they are diseased or have the potential to fail, now is the time to get them removed. Once the evaluations have been done, removal permits can be applied for and trees that are to remain can be pruned up and safety balanced.

David Pendergraft
Urban Forestry Supervisor
City of Visalia

QUALITY ASSURANCE DIVISION
SITE PLAN REVIEW COMMENTS

ITEM NO: 4 DATE: May 16, 2012
SITE PLAN NO: SPR12025 *RESUBMIT*
PROJECT TITLE: DIAMOND OAKS VESTING SUBDIVISION MAP
DESCRIPTION: VESTING TENTATIVE SUBDIVISION MAP TO
 CREATE 179 LOTS ON 56.7 ACRES (REFER 10-061)
APPLICANT: LANE ENGINEERS INC
PROP OWNER: DIAMOND OAKS L P
LOCATION: 901 E CALDWELL AVE
APN(S): 126-100-012

YOU ARE REQUIRED TO COMPLY WITH THE CITY OF VISALIA WASTEWATER ORDINANCE 13.08 RELATIVE TO CONNECTION TO THE SEWER, PAYMENT OF CONNECTION FEES AND MONTHLY SEWER USER CHARGES. THE ORDINANCE ALSO RESTRICTS THE DISCHARGE OF CERTAIN NON-DOMESTIC WASTES INTO THE SANITARY SEWER SYSTEM.

YOUR PROJECT IS ALSO SUBJECT TO THE FOLLOWING REQUIREMENTS:

- WASTEWATER DISCHARGE PERMIT APPLICATION
- SAND AND GREASE INTERCEPTOR - 3 COMPARTMENT _____
- GREASE INTERCEPTOR min. 1000 GAL
- GARBAGE GRINDER - ¾ HP. MAXIMUM _____
- SUBMISSION OF A DRY PROCESS DECLARATION _____
- NO SINGLE PASS COOLING WATER IS PERMITTED _____
- OTHER _____
- SITE PLAN REVIEWED - NO COMMENTS

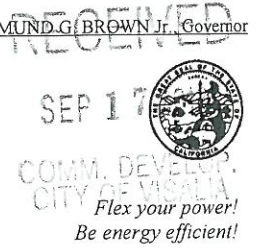
CALL THE QUALITY ASSURANCE DIVISION AT (559) 713-4529 IF YOU HAVE ANY QUESTIONS.

CITY OF VISALIA
PUBLIC WORKS DEPARTMENT
QUALITY ASSURANCE DIVISION
7579 AVENUE 288
VISALIA, CA 93277

Dr. R. Knight
AUTHORIZED SIGNATURE
5-14-12
DATE

DEPARTMENT OF TRANSPORTATION

DISTRICT 6
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 488-7396
FAX (559) 488-4088
TTY (559) 488-4066



September 14, 2012

2135-IGR/CEQA
6-TUL-198-10.80 +/-
TIS SCOPE
DIAMOND OAKS (VTSM) (6)
REF: SP 12-025/ SP 10-061/ SP 08-146

Ms. Sandra Cloyd
City of Visalia
Public Works Department Engineering Services
315 East Acequia Avenue
Visalia, CA 93291

Dear Ms. Cloyd:

Caltrans has completed review of the Omni-Means 8/24/2012 Memorandum and Traffic Impact Study (TIS) scope for the Diamond Oaks vesting tentative subdivision map (VTSM). The project proposes to create 179 single-family residential lots on approximately 57 acres located on the south side of Caldwell Ave between the future alignments for Burke Street to the west and Ben Maddox Way to the east, approximately 2 miles south of State Route (SR) 198 and east of SR 63 in the city of Visalia.

The memo and scope provides justification for *not analyzing* the SR 198/Lovers Lane interchange, the SR198/Ben Maddox interchange and the SR 63/Caldwell intersection in the TIS. Based on the Tulare County Associate of Government (TCAG) model projections that less than 50 peak hour trips are forecasted at these locations, Caltrans *concurs* with the Omni-Means conclusion for not analyzing the State Highway Facility in the TIS.

However, in the event of any expansion or change in the scope of work for the proposed development which might generate additional traffic, the project shall be subject to further review by Caltrans.

If you have any questions, please call me at (559) 488-7396.

Sincerely,

DAVID DEEL
Associate Transportation Planner
District 6

Copy via email: Omni-Means – Mike Winton/Gary Mills
Caltrans Traffic Operations
Caltrans Technical Planning

Mailed Copy to
Lane Engineers
979 N Blackstone
Tulare CA 93274
9/25/12



MEMORANDUM

To: Caltrans District 6
Attn: David Deel
From: Mike Winton & Gary Mills
Re: Diamond Oaks TIAR

Date: August 24, 2012
Project: Diamond Oaks TIAR
Job No.: 55-2454-01
File No.: C1639MEM001.DOC

CC: Sandra Cloyd, City of Visalia
Kevin Fistolera, Diamond Oaks, LLP
Larry Simonetti, Lane Engineers

This memorandum has been prepared in response to the February 21, 2012 and May 17, 2012 letters regarding your recommendations to analyze the State Route 198 interchanges at Ben Maddox Way and Lovers Lane and the intersection of Caldwell Avenue/Mooney Boulevard (State Route 63) for the Diamond Oaks Subdivision Project. The original letters are attached to this memorandum for reference. Omni-Means recently received a select zone modeling run for the Project from the Tulare County Association of Governments (TCAG) and have attached the results to this memorandum.

The model plots identify the AM and PM peak hour Project only volumes that are forecasted to occur in 2035 at these three locations. As shown in the plots, less than 50 peak hour trips are forecasted to be assigned to the three locations identified above. According to the Caltrans *"Guide for the Preparation of Traffic Impact Studies"* (December 2002) trip generation thresholds, *"When a project generates 50 to 1000 peak hour trips assigned to a State highway facility and affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS "C" or "D")"*. Since the proposed project does not meet this threshold, those locations have not been selected for evaluation for this project. Omni-Means has attached the proposed scope of work for the TIAR for your information. The intersections chosen for analysis were discussed with city staff and were identified as "potentially impacted" locations based upon the project size and location.

Please review the attached scope of work and contact us if you have any questions. In addition, the select model run from TCAG, in CUBE format, can be provided upon request.

Attachments

DEPARTMENT OF TRANSPORTATION

DISTRICT 6

1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 488-7396
FAX (559) 488-4088
TTY (559) 488-4066



*Flex your power!
Be energy efficient!*

February 21, ²⁰¹²~~2011~~

2135-IGR/CEQA
6-TUL-198-10.80 +/-
SP 12-025
DIAMOND OAKS (VTSM) (4)
REF: SP 10-061/ SP 08-146
AGENDA 02/08/12

Ms. Sandra Cloyd
City of Visalia
Public Works Department Engineering Services
315 East Acequia Avenue
Visalia, CA 93291

Dear Ms. Cloyd:

Thank you for the opportunity to review Site Plan (SP) 12-025 proposing a Vesting Tentative Subdivision Map (VTSM) to create 179 single-family residential lots on approximately 57 acres. The project is located on the south side of Caldwell Ave between the future alignments for Burke Street to the west and Ben Maddox Way to the east, approximately 2 miles south of State Route (SR) 198 and east of SR 63 in the city of Visalia. Caltrans has the following comments:

Caltrans has provided comments on several proposals (SP 08-146 & SP 10-061) to create single family lots on the subject site. It is estimated that the proposed project would generate a significant amount of traffic that would potentially impact the State Highway System (SHS). It is anticipated that the proposed project would significantly impact the SR 198/Lovers Lane interchange, the SR 198/Ben Maddox interchange and the SR 63 (Mooney Boulevard)/Caldwell intersection. **A Traffic Impact Study (TIS) is needed to assess these project-related impacts to the State Highway system and address equitable fair share towards improvements and/or appropriate mitigation measures.** The study should include traffic impact mitigation measures for opening day and for the 20 year scenario after construction. Please have the preparer of the traffic study reference the Caltrans Guide for the Preparation of Traffic Impact Studies, dated December 2002, and send the scope of the TIS to Caltrans before the traffic study is conducted. Caltrans Guide, while advisory, contains Best Practices and gives insight into Caltrans' expectations when reviewing a traffic study. If the traffic consultant has any issues or concerns regarding the use of the Guide or its interpretation, please contact us so resolution can be reached.

Please send a response to our comments prior to staff's recommendations to the Planning Commission and/or the City Council. Also please provide a copy of the resolution approving the project. If you have any questions, please call me at (559) 488-7396.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Deel", written over a horizontal line.

DAVID DEEL
Associate Transportation Planner
District 6

RECEIVED
MAY 1 8 2012



CC: Flex your power!
Be energy efficient!

DEPARTMENT OF TRANSPORTATION

DISTRICT 6
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 488-7396
FAX (559) 488-4088
TTY (559) 488-4066

May 17, 2012

2135-IGR/CEQA
6-TUL-198-10.80 +/-
SP 12-025
DIAMOND OAKS (VTSM) (5)
REF: SP 10-061/ SP 08-146
AGENDA 05/16/12

Ms. Sandra Cloyd
City of Visalia
Public Works Department Engineering Services
315 East Acequia Avenue
Visalia, CA 93291

Dear Ms. Cloyd:

Thank you for the opportunity to review Site Plan (SP) 12-025 proposing a Vesting Tentative Subdivision Map (VTSM) to create 179 single-family residential lots on approximately 57 acres. The project is located on the south side of Caldwell Ave between the future alignments for Burke Street to the west and Ben Maddox Way to the east, approximately 2 miles south of State Route (SR) 198 and east of SR 63 in the city of Visalia. Caltrans has the following comments:

The previous Caltrans comments dated February 21, 2012 (copy enclosed) continue to be valid.

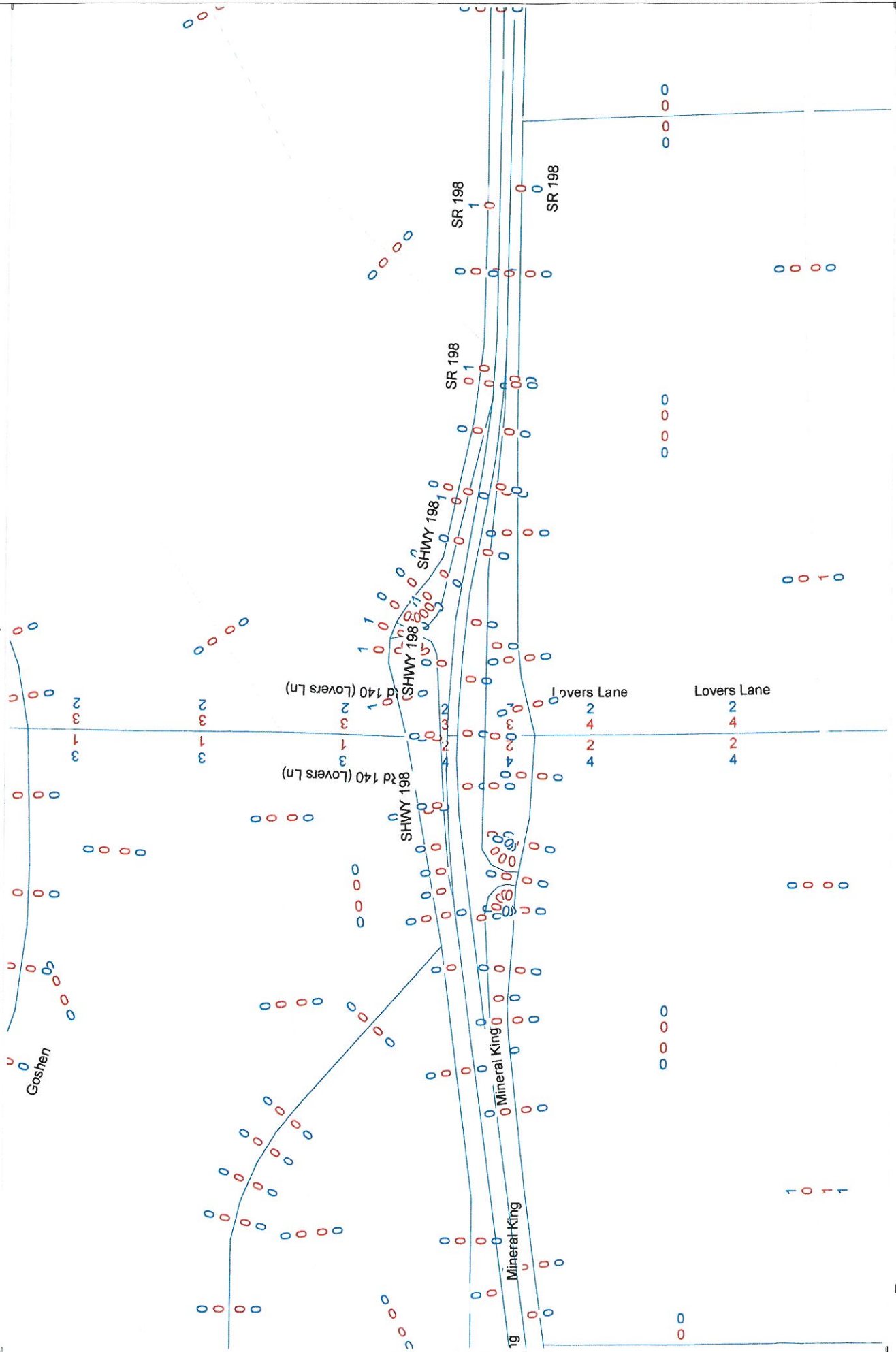
Please be advised that any future development in the vicinity of a State Route, whether the entitlement is deemed by the lead agency to be discretionary or ministerial should be sent to Caltrans for review.

Please send a response to our comments and a copy of the resolution related to the proposed project. If you have any questions, please call me at (559) 488-7396.

Sincerely,

DAVID DEEL
Associate Transportation Planner
District 6

TCAG 2035 Select Zone Model Run AM (Red) and PM (Blue) Peak Hour Volumes Diamond Oaks Subdivision



SCOPE OF WORK

DIAMOND OAKS SUBDIVISION TRAFFIC IMPACT STUDY

Task 1 *Collect Existing Data.* To provide a database of existing and future conditions, available relevant data will be collected from the City of Visalia, Caltrans and other public agencies as deemed necessary. This data would include traffic counts, existing development, planned development proposals, improvement plans and scheduling, etc. The following intersections will be analyzed under AM and PM peak hour conditions:

- Caldwell Avenue/Burke Street
- Caldwell Avenue/Ben Maddox Way
- Caldwell Avenue/Edison Street (Future "Project" Intersection)

Task 2 *Existing Conditions Analysis.* Based upon the data collected in Task 1, the existing traffic operations will be quantified. The existing transportation setting within the vicinity of the proposed project will be described in terms of roadway classifications, number of lanes, existing peak hour traffic counts, and adjacent land uses. Intersection and roadway geometries, controls, signal warrants, and level of service values will also be quantified for the critical intersections identified in Task 1. California MUTCD Peak Hour Warrant 3 will be used for the signal warrant evaluation.

Task 3 *Project Trip Generation.* The total number of vehicle trips expected to be generated by the project site will be estimated. The primary source of trip generation rates will be information from *Trip Generation* (8th Edition) published by the Institute of Transportation Engineers. These rates will be adjusted accordingly for the specific site and reviewed with the City of Visalia. Project trip generation volumes will be estimated for daily, AM, PM, and peak hour of adjacent street traffic during weekday conditions.

Since the project is planned to develop in four separate phases, trip generation will be estimated for each of the project phases (i.e. Phase 1, Phase 1 & 2, Phases 1, 2, & 3, and Project build-out). OMNI-MEANS will work with Lane Engineers to determine the estimated timing of the project phases for analysis purposes.

Task 4 *Approved Project Conditions.* OMNI-MEANS will request a list of approved project's within the project area from the City of Visalia. The total number of vehicle trips expected to be generated by currently approved projects within the project area will be estimated. The primary source of trip generation rates will be information from the *Trip Generation* (8th Edition) published by the Institute of Transportation Engineers. These rates will be adjusted accordingly for the specific sites and reviewed with the City of Visalia. Approved project trip generation volumes will be estimated for daily, AM, PM, and peak hour of adjacent street traffic during weekday conditions.

Task 5 *Trip Distribution and Assignment.* Based upon an analysis of the trip making characteristics of the proposed project, use of Tulare County Association of Governments (TCAG) regional travel demand forecast model, existing and future traffic flow patterns, and area demographics; the trip distribution of project generated traffic will be estimated. Traffic will be assigned to the existing street system based upon logical travel patterns associated with this directional distribution.

Task 6 *Existing plus Project Conditions Analysis.* Based upon the results of Tasks 3 and 5, the resulting peak hour project generated traffic will be added to existing volumes to obtain the Existing plus Project traffic operations. The potential impacts of the project will be quantified by comparison of Existing Conditions levels of service to Existing plus Project levels of service at the critical intersections identified in Task 1.

Since the project is planned to develop in four separate phases, Existing plus Project traffic operations will be quantified for each of the project phases (i.e. Phase 1, Phase 1 & 2, Phases 1, 2, & 3, and Project build-out). OMNI-MEANS will work with Lane Engineers to determine the estimated timing of the project phases for analysis purposes.

Task 7 *Existing plus Approved Projects Conditions Analysis.* Based upon the results of Tasks 4 and 5, the resulting peak hour and daily generated trip volumes from currently approved projects will be added to existing volumes to obtain the Existing plus Approved Projects traffic operations. The potential impacts of the approved projects will be quantified by comparison of Existing Condition levels of service, to Existing plus Approved Projects levels of service at the critical intersections identified in Task 1.

Task 8 *Project Access and Internal Circulation.* Proposed and potential project driveways/access roadways will be evaluated to determine appropriate configuration, location, throat depth and traffic control. Spacing with other intersections and roadways, and vehicle stacking requirements will be evaluated. Internal traffic conditions within the site plan, related vehicle circulation, and capacity will also be reviewed.

Task 9 *Cumulative Base (Year 2035) Conditions.* Based upon traffic projections obtained from the TCAG regional transportation model, peak hour and daily trip volumes will be obtained to simulate Cumulative traffic conditions. The critical intersections identified in Task 1 will be analyzed using these volumes along with programmed transportation improvements that are expected to be in-place under the Cumulative Base condition.

Task 10 *Cumulative Base plus Project Conditions.* Cumulative Base plus Project traffic conditions will be simulated by adding the project generated trips to the Cumulative Base traffic volumes. Under Cumulative Base plus Project conditions, only the full build-out of the proposed project will be analyzed. The potential impacts of the project will be quantified by comparison of the Cumulative Base traffic operations to the Cumulative Base plus Project traffic operations at the critical intersections identified in Task 1.

Task 11 *Mitigation Measures.* Intersection improvements that could be made to correct any identified impacts for each of the individual traffic conditions will be recommended. These improvements could include, but are not limited to, roadway widening, signalization, channelization, etc. Level of service values will be reported for mitigated conditions. If needed, the project's pro-rata share for all necessary improvements will be calculated.

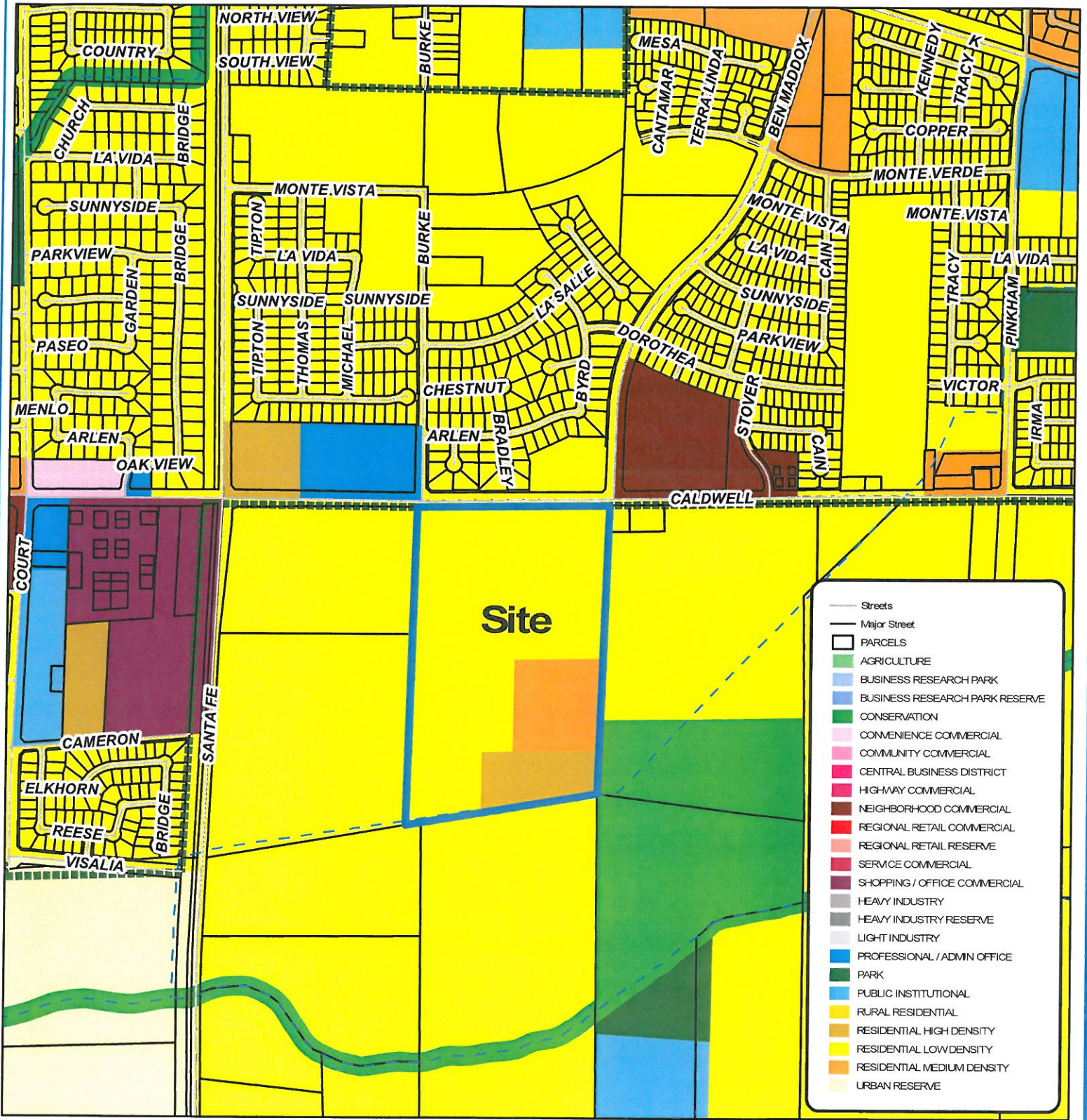
Task 12 *Prepare Report.* The analyses conducted in Tasks 1 through 11 will be summarized in text, tables, and figures to explain the technical evaluation and recommendations. A detailed report will be prepared and submitted to Lane Engineers, the City of Visalia, and other affected agencies for review and comment.

Task 13 *Agency Review and Response to Comments.* Following review of the traffic study, OMNI-MEANS will respond to all comments and revise the report as required to satisfy agency concerns.

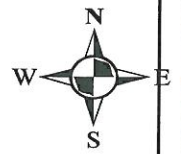
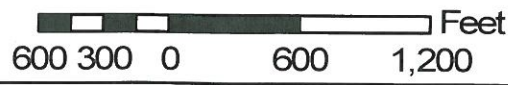
Comments requiring significant new analysis or technical discussion may be subject to additional charges. This additional work will be completed only with client's prior authorization and will be billed on a Time and Materials basis.

Task 14 Meetings. OMNI-MEANS will attend 1 meeting during the study. Additional meetings that are deemed necessary will be left to the client's discretion. We will be available to attend these meetings only with your prior authorization. These meetings would be billed on a Time and Materials basis.

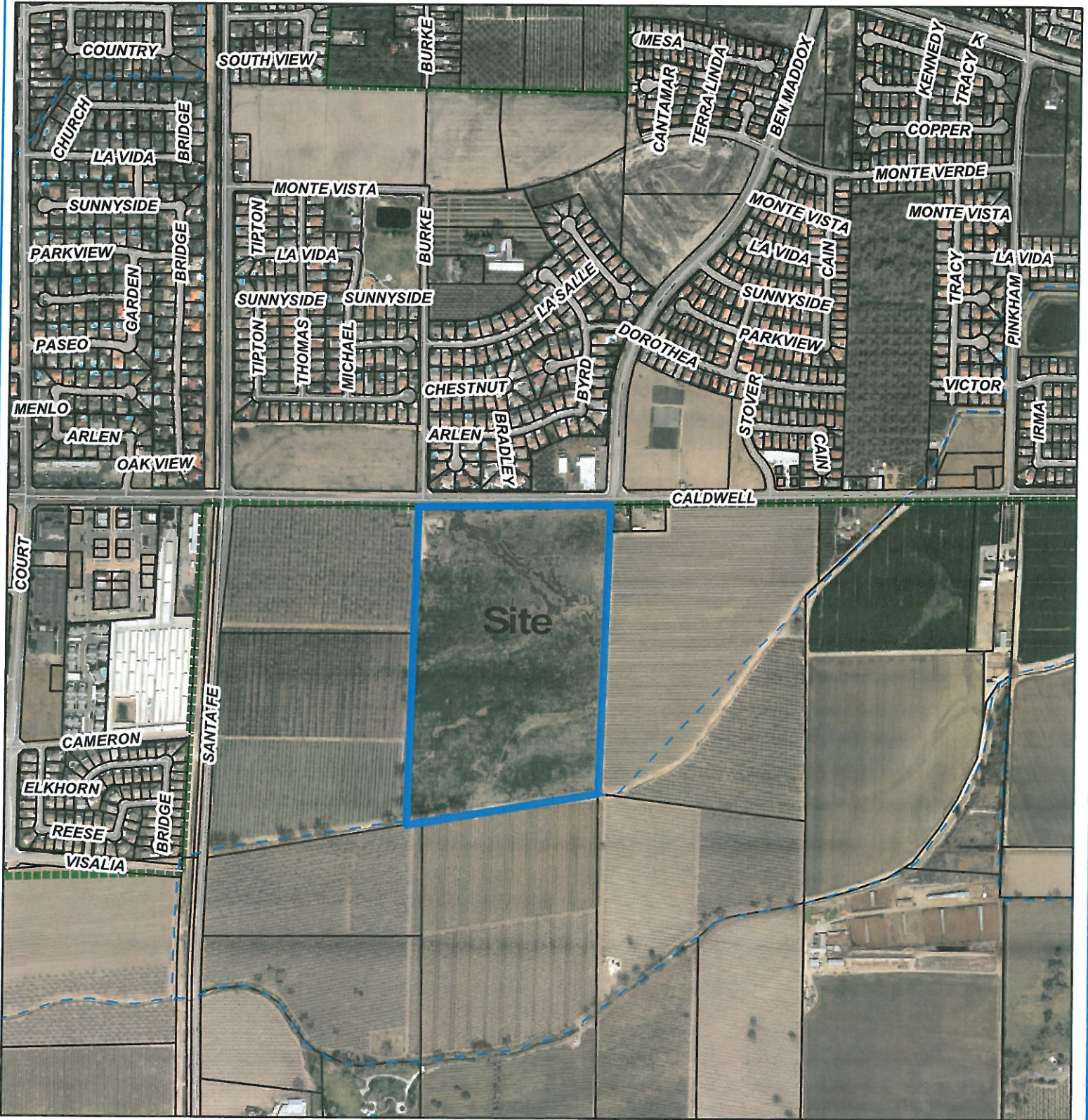
Diamond Oaks Vesting Tentative Subdivision Map No. 5547 & Conditional Use Permit No. 2013-17



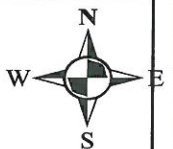
General Plan Land Use Map



Diamond Oaks Vesting Tentative Subdivision Map No. 5547 & Conditional Use Permit No. 2013-17



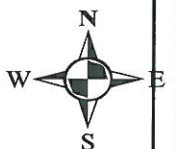
Aerial Map



Diamond Oaks Vesting Tentative Subdivision Map No. 5547 & Conditional Use Permit No. 2013-17



Aerial Map



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Vicinity Map

