DUDEK

Exhibit B3
PUD-81-30-87D
Received April 9, 2013

MEMORANDUM

To:	Ardie Zahedani, St. Anton Partners
From:	Brian Grover, Dudek
Subject:	Anton Hacienda – Cancer Risk Screening Analysis
Date:	January 21, 2013
cc:	David Deckman, Dudek
	Christine Kronenberg, Dudek
Attachment(s):	Figures 1-3

INTRODUCTION

Dudek understands that St. Anton Partners is proposing a development project (Anton Hacienda) consisting of 168 dwelling units on a 5.6-acre site in the City of Pleasanton, California (Figures 1-3). The project site is located at 5729 West Las Positas Boulevard and is zoned PUD-HDR. The site is approximately one mile south of Interstate 580 (I-580) and one and a half miles east of Interstate 680 (I-680), near the intersection of West Las Positas Boulevard and Stoneridge Drive. The site is generally bound by Tassajara Creek to the northwest; a Valley Care medical facility to the northeast; and the Verona condominium project and West Las Positas Boulevard to the south.

In the Final Environmental Impact Report (EIR) prepared for the City's General Plan Amendment and Rezonings associated with the City's Housing Element and Climate Action Plan (ESA 2012) potential sites were identified for future residential or mixed-use projects. These sites were evaluated for the potential exposure of sensitive receptors (i.e., residences) to substantial health risks from diesel particulate matter and other toxic air contaminants (TACs) from mobile and stationary sources. As a result, Mitigation Measure 4.B-4 requires that a proposed project's potential exposure to TACs be analyzed in accordance with Bay Area Air Quality Management District (BAAQMD) guidance. If BAAQMD screening thresholds are exceeded, Mitigation Measure 4.B-4 includes requirements to reduce potential health risks.

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills.

Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced either on short-term (acute) or long-term (chronic) exposure to a given TAC.

Consistent with BAAQMD guidance and the requirements outlined in Mitigation Measure 4.B-4 of the City's General Plan Amendment and Rezonings EIR, this memorandum evaluates the potential cancer risk on future residences at the project site associated with mobile sources on nearby roadways.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT THRESHOLDS

The BAAQMD's *California Environmental Quality Act Air Quality Guidelines* provide guidance for Bay Area project proponents and the public for determining whether, based on substantial evidence, a project may have a significant effect on the environment under California Public Resources Code, Section 21082.2, or if a project may result in the exposure of sensitive receptors to substantial pollutant concentrations. In early 2012 the BAAQMD was ordered by the Alameda County Superior Court to set aside their air quality thresholds because the district board adopted the thresholds without undergoing CEQA review. The BAAQMD has appealed this decision and is waiting a decision from the Court of Appeal. In light of the ruling, the district is recommending that lead agencies determine their own appropriate air quality thresholds. It is our understanding that the City of Pleasanton is choosing to use the 2011 BAAQMD thresholds to evaluate potential cancer risks on future residents associated with TACs.

Quantitative emission thresholds prescribed in the BAAQMD Guidelines are shown in Table 1. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 1 are exceeded.

If emissions would exceed these thresholds, the lead agency must implement feasible mitigation measures to reduce associated air quality impacts. The mitigated project or plan's impacts are then compared again to the significance thresholds. If a project exceeds the thresholds, the BAAQMD strongly encourages lead agencies to consider project alternatives that could lessen any identified significant impact, including a no project alternative in accordance with the CEQA Guidelines, Section 15126.6(e) (BAAQMD 2011a).

Table 1
Bay Area Air Quality Management District Air Quality Significance Thresholds
Risk and Hazards

Additional BAAQMD Requirements		
Pollutant	*Construction-Related*	*Operational-Related*
Risk and Hazards for new sources and receptors (Individual Project)	Same as Operational Thresholds**	Compliance with Qualified Community Risk Reduction Plan OR **Increased cancer risk of > 10.0 in a million*** Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) Ambient $PM_{2.5}$ increase: > 0.3 µg/m³ annual average Zone of Influence: 1,000-foot radius from property line of source or receptor
Risk and Hazards for new sources and receptors (Cumulative Threshold)	Same as Operational Thresholds**	Compliance with Qualified Community Risk Reduction Plan OR **Cancer: > 100 in a million (from all local sources)*** Non-cancer: > 10.0 Hazard Index (from all local sources) (Chronic) $PM_{2.5}$: > 0.8 µg/m³ annual average (from all local sources) Zone of Influence: 1,000-foot radius from property line of source or receptor

Source: BAAQMD 2011a. * Emphasis added.

Local Community Risk and Hazard Impacts

Local community risk and hazard impacts are associated with TACs and particulate matter greater than 2.5 microns in diameter ($PM_{2.5}$) because emissions of these pollutants can have significant health impacts at the local level. These thresholds from the BAAQMD Guidelines are intended to apply to projects that would site new permitted or non-permitted sources in proximity to receptors and for projects that would site new sensitive receptors in proximity to permitted or non-permitted sources of TAC or $PM_{2.5}$ emissions. If emissions of TACs or $PM_{2.5}$ exceed any of the thresholds listed below, the proposed project would result in a significant impact:

- Non-compliance with a Community Risk Reduction Plan;
- An excess cancer risk level of more than 10 in one million, or a non-cancer (i.e., chronic or acute) hazard index greater than 1.0 would be a significant cumulatively considerable contribution;
- An incremental increase of greater than 0.3 micrograms per cubic meter (µg/m³) annual average $PM_{2.5}$ from a single source would be a significant cumulatively considerable contribution.

A project would have a cumulatively considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source, or from the location of a receptor, plus the contribution from the project, exceeds the following:

- Non-compliance with a qualified Community Risk Reduction Plan; or
- An excess cancer risk levels of more than 100 in one million or a chronic non-cancer hazard index (from all local sources) greater than 10.0; or
- 0.8 $\mu g/m^3$ annual average $PM_{2.5}$.

ANALYSIS AND FINDINGS

The BAAQMD recommends that a lead agency identify all TAC and $PM_{2.5}$ sources located within a 1,000-foot radius of the proposed project site. A lead agency should enlarge the 1,000-foot radius on a case-by-case basis if an unusually large source or sources of risk or hazard emissions that may affect a proposed project is beyond the recommended radius. Permitted sources of TAC and $PM_{2.5}$ should be identified and located as should freeways and major (high-volume) roadways, and other potential sources (BAAQMD 2011a).

Based on the BAAQMD guidance, major roadways with more than 10,000 annual average daily trips (ADT) were identified within the project vicinity, which include West Las Positas Boulevard and Stoneridge Drive. Annual ADT data were obtained for these roadways from the California Environmental Health Tracking Program (CDPH 2011), the City of Pleasanton, and County-specific Roadway Screening Analysis tables from the BAAQMD's website were used to determine cancer risk based on the roadway's annual average daily traffic, distance from the project site, and orientation (BAAQMD 2011c). Values found in the Screening Analysis Tables were conservatively rounded to the nearest estimated value. The screening values for cancer risk for each of these roadways are shown in Table 2.

Table 2
Screening Data for Existing Major Roadways
(within 1,000 feet of the proposed project)

Roadway Segment	Annual Average Daily Traffic	Distance to Project Site (feet)	City	Cancer Risk (in a million)
West Las Positas Blvd	10,900	80	Pleasanton	4.63
Stoneridge Drive	24,300	385	Pleasanton	3.86
			TOTAL	8.49
			BAAQMD Screening Threshold	10
			Threshold Exceeded?	**No**

Source: CDPH 2011; BAAQMD 2011b.

As indicated previously in Table 1, the BAAQMD risk and hazards screening analysis requires that each source's estimated cancer risk be compared to the single source thresholds (10 in a million for cancer risk). The major roadways would result in individual emissions that would be below this threshold, as shown in Table 2. Therefore, impacts related to cancer risks from individual TAC sources would be less than significant, and no further analysis is required.

REFERENCES

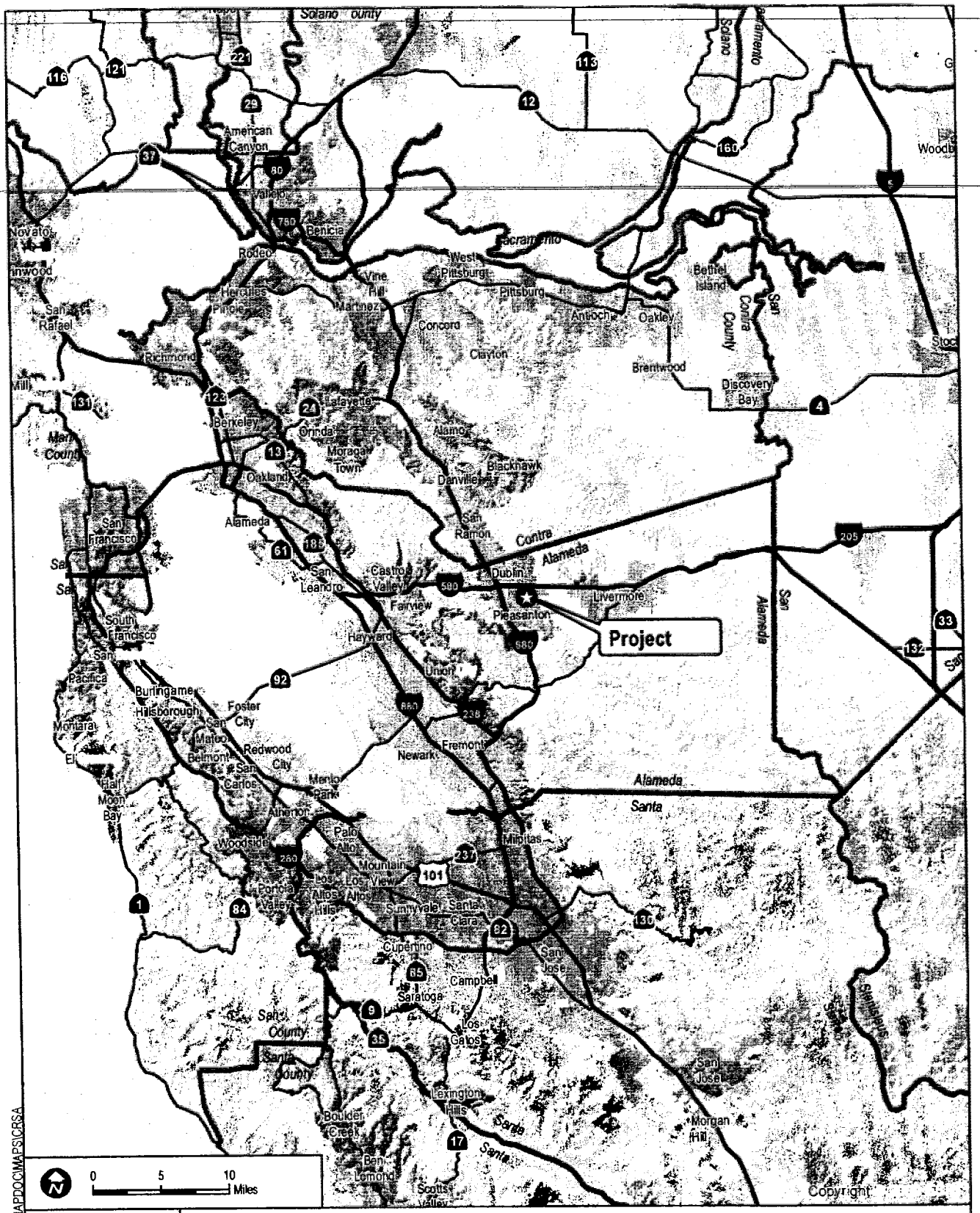
BAAQMD. 2011a. *California Environmental Quality Act Air Quality Guidelines*. Updated May 2011. Accessed November 2011. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx.

BAAQMD. 2011b. "Stationary Source Screening Analysis Tool, Napa Solano May 2011." Tools & Methodology. Accessed October 4, 2011. http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

BAAQMD. 2011c. "Roadway Screening Analysis Tables." Tools & Methodology. May 2011. Accessed October 4, 2011. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/County%20Surface%20Street%20Screening%20Tables.ashx?la=en.

CDPH (California Department of Public Health). 2011. "CEHTP Traffic Linkage Service Demonstration – Spatial Linkage Results." Accessed November 29, 2011. http://www.ehib.org/traffic_tool.jsp.

ESA. 2012. City of Pleasanton, Housing Element and Climate Action Plan, General Plan Amendment and Rezonings – Final Supplemental Environmental Impact Report. SCH #2011052002. January.



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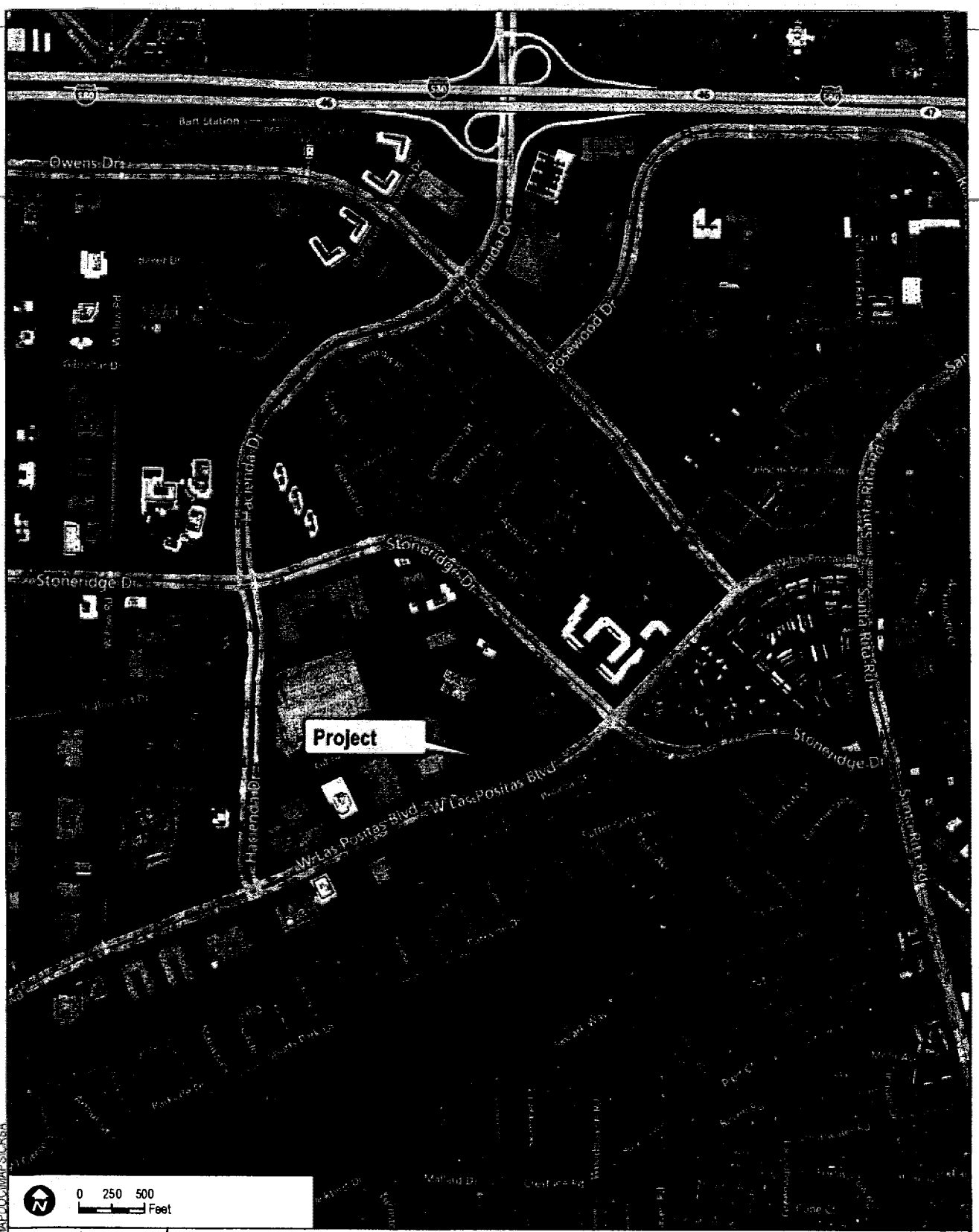

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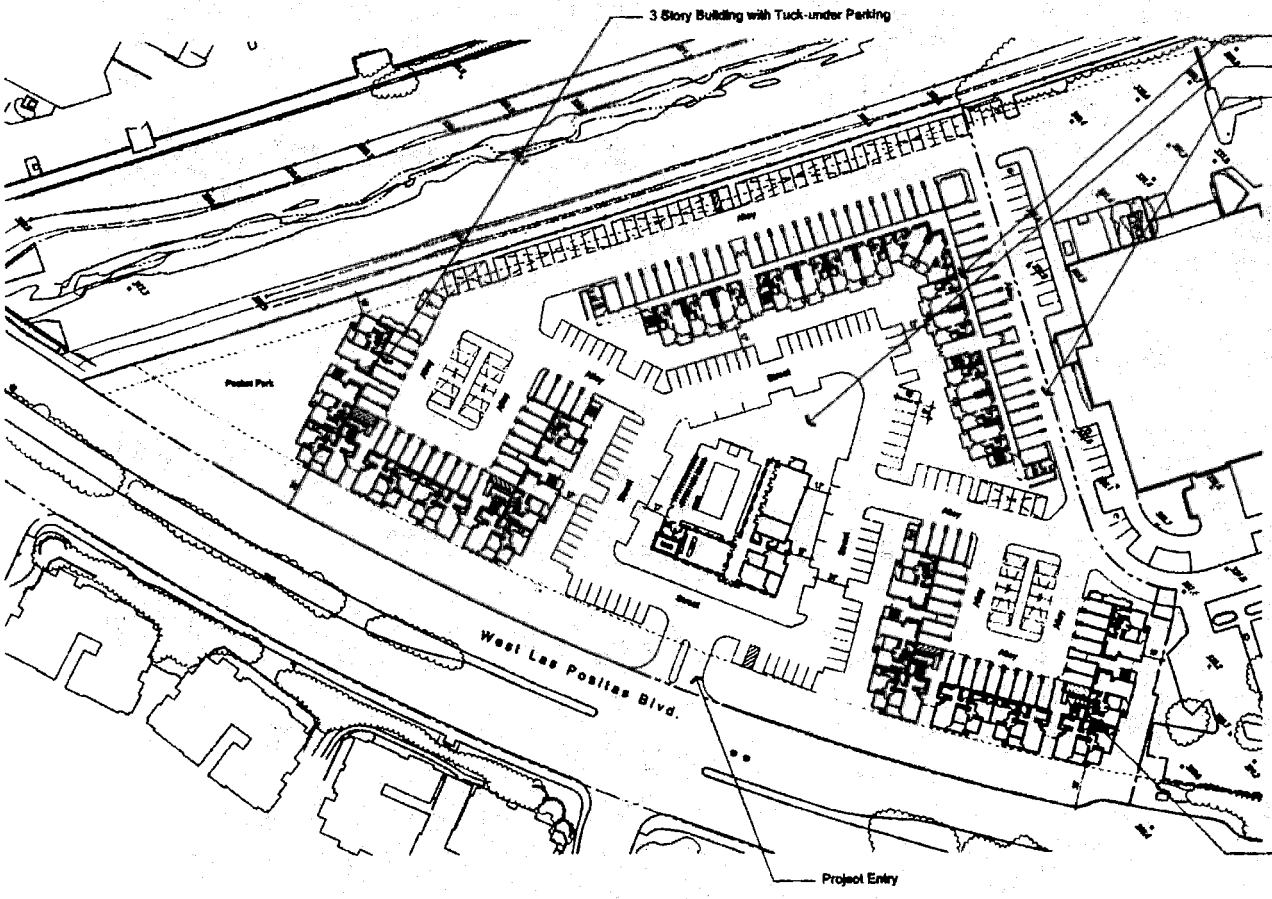

Site Summary		
Gross Site Area	5.60 AC	
Dwelling Units	186 DU	
Density	0.0.0 AC	
Floor Area Ratio	0.87	235,000/243,74

Site Areas		
Landscape Area	52,682	21.7%
Building	70,200	28.9%
Streets Parking/Sidewalks	120,292	49.5%
Total Impervious	190,492	78.3%
Site Total	243,174	100.0%

Plan Summary	BC	SF	# of Units	%	Total Net S.F.	Avg. Unit S.F.
P-A		968	49	26.6%		
P-B		789	8	4.8%		
P-C		888	8	4.8%		
P2A	2	914	56	33.1%		
P2B	2	1061	24	14.3%		
P2C	2	1158	8	4.8%		
3A	3	1259	16	9.5%		
Site			168	100.0%	149,736	887

Unit Mix	No. Units	Mix
1 bedroom total	64	38.1%
2 bedroom total	88	52.4%
3 bedroom total	16	9.5%
Total	168	100.0%

Parking Summary			
Parking required	No. Units	Spaces Required	Spaces/ Unit
1 bed	64	96	1.5
2 bed	88	154	1.75
3 bed	16	32	2
Total		282.0	1.68
Parking provided		Spaces Provided	Spaces/ Unit
Garage Spaces		96	
On Site Spaces		186	
Total parking spaces		282	1.70
Bike Parking			
In Garages		80	
In Common Bike Storage Rooms		45	
Total Bike Spaces		125	(0.75/unit)

Open Space Summary			
Private Open Space Provided	No. Units	O.S. Provided	O.S. Unit
Total Units	168	12,300	73
Common Open Space Provided	No. Units	O.S. Provided	O.S. Unit
Total Units	168	99,885	5.7
Total		99,956	595

0 20 40 80

21480004 Anton Hacienda

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments Mid Rise	168	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	
Climate Zone	4		2.2		
		Precipitation Freq (Days)			
			63		

1.3 User Entered Comments

Project Characteristics -

Land Use - Per Client: number of dwelling units is 168, and the acreage of the project site is 5.6.

Construction Phase - Start Dates- Demolition: 3/1/2013 Site Prep: 3/29/2013 Grading: 4/12/2013 Construction: 5/10/2013 Paving: 3/28/2014 Arch Coating: 4/25/20

Demolition - Assumptions, pavement 3 inches thick, with a weight of 145 pounds per cubic foot of pavement

Vechicle Emission Factors - Used accepted residential fleet mix based off VRPA Research.

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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
2013	0.75	4.94	3.93	0.01	0.41	0.29	0.70	0.10	0.29	0.39	0.00	617.38	617.38	0.06	0.00	618.64
2014	2.86	1.46	1.28	0.00	0.05	0.10	0.15	0.00	0.10	0.10	0.00	196.90	196.90	0.02	0.00	197.31
Total	3.61	6.40	5.21	0.01	0.46	0.39	0.85	0.10	0.39	0.49	0.00	814.28	814.28	0.08	0.00	815.95

2.2 Overall Operational

Unmitigated 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										MT/yr					
Area	1.98	0.03	2.68	0.00		0.00	0.21		0.00	0.21	19.96	15.16	35.13	0.03	0.00	36.28
Energy	0.01	0.08	0.04	0.00		0.00	0.01		0.00	0.01	0.00	97.69	97.69	0.00	0.00	98.28
Mobile	0.96	1.19	9.26	0.01	1.19	0.05	1.24	0.05	0.05	0.10	0.00	1,040.67	1,040.67	0.05	0.00	1,041.77
Waste						0.00	0.00		0.00	0.00	15.69	0.00	15.69	0.93	0.00	35.16
Water						0.00	0.00		0.00	0.00	0.00	0.12	0.12	0.33	0.01	9.71
Total	2.95	1.30	11.98	0.01	1.19	0.05	1.46	0.05	0.05	0.32	35.65	1,153.64	1,189.30	1.34	0.01	1,221.20

3.1 Mitigation Measures Construction

3.2 Demolition - 2013

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										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.71	0.43	0.00		0.04	0.04		0.04	0.04	0.00	68.12	68.12	0.01	0.00	68.27
Total	**0.09**	**0.71**	**0.43**	**0.00**	**0.04**	**0.04**	**0.08**	**0.01**	**0.04**	**0.05**	**0.00**	**68.12**	**68.12**	**0.01**	**0.00**	**68.27**

Unmitigated Construction Off-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										MT/yr					
Hauling	0.01	0.11	0.05	0.00	0.07	0.00	0.08	0.00	0.00	0.00	0.00	14.89	14.89	0.00	0.00	14.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	1.50	0.00	0.00	1.50
Total	**0.01**	**0.11**	**0.06**	**0.00**	**0.07**	**0.00**	**0.08**	**0.00**	**0.00**	**0.00**	**0.00**	**16.39**	**16.39**	**0.00**	**0.00**	**16.40**

3.3 Site Preparation - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.40	0.23	0.00		0.02	0.02		0.02	0.02	0.00	36.27	36.27	0.00	0.00	36.35
Total	**0.05**	**0.40**	**0.23**	**0.00**	**0.09**	**0.02**	**0.11**	**0.05**	**0.02**	**0.07**	**0.00**	**36.27**	**36.27**	**0.00**	**0.00**	**36.35**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.00	0.00	0.90
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.90**	**0.90**	**0.00**	**0.00**	**0.90**

3.4 Grading - 2013

Unmitigated 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
Fugitive Dust					0.07	0.00	0.07	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.06	0.49	0.31	0.00		0.03	0.03		0.03	0.03	0.00	47.52	47.52	0.01	0.00	47.63
Total	**0.06**	**0.49**	**0.31**	**0.00**	**0.07**	**0.03**	**0.10**	**0.03**	**0.03**	**0.06**	**0.00**	**47.52**	**47.52**	**0.01**	**0.00**	**47.63**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	1.50	0.00	0.00	1.50
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.50**	**1.50**	**0.00**	**0.00**	**1.50**

3.5 Building Construction - 2013

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										MT/yr					
Off-Road	0.43	2.91	1.97	0.00		0.19	0.19		0.19	0.19	0.00	307.83	307.83	0.04	0.00	308.56
Total	0.43	2.91	1.97	0.00		0.19	0.19		0.19	0.19	0.00	307.83	307.83	0.04	0.00	308.56

Unmitigated Construction Off-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										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.02	0.25	0.14	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	37.41	37.41	0.00	0.00	37.43
Worker	0.08	0.08	0.77	0.00	0.12	0.00	0.13	0.01	0.00	0.01	0.00	101.46	101.46	0.01	0.00	101.60
Total	0.10	0.33	0.91	0.00	0.13	0.01	0.15	0.01	0.01	0.02	0.00	138.87	138.87	0.01	0.00	139.03

3.5 Building Construction - 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										MT/yr					
Off-Road	0.15	0.99	0.72	0.00		0.06	0.06		0.06	0.06	0.00	113.60	113.60	0.01	0.00	113.85
Total	**0.15**	**0.99**	**0.72**	**0.00**		**0.06**	**0.06**		**0.06**	**0.06**	**0.00**	**113.60**	**113.60**	**0.01**	**0.00**	**113.85**

Unmitigated Construction Off-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
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.08	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.82	13.82	0.00	0.00	13.82
Worker	0.03	0.03	0.26	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	36.66	36.66	0.00	0.00	36.71
Total	**0.04**	**0.11**	**0.31**	**0.00**	**0.05**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**50.48**	**50.48**	**0.00**	**0.00**	**50.53**

3.6 Paving - 2014

Unmitigated Construction On-Site

Location	TOG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.05	0.32	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.55
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.32	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.55

Unmitigated Construction Off-Site

Location	TOG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.47
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.47

3.7 Architectural Coating - 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										MT/yr					
Archit. Coating	2.63					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.55	2.55	0.00	0.00	2.56
Total	**2.63**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.55**	**2.55**	**0.00**	**0.00**	**2.56**

Unmitigated Construction Off-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										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.35	0.00	0.00	2.35
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.35**	**2.35**	**0.00**	**0.00**	**2.35**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.96	1.19	9.26	0.01	1.19	0.05	1.24	0.05	0.05	0.10	0.00	1,040.67	1,040.67	0.05	0.00	1,041.77
Unmitigated	0.96	1.19	9.26	0.01	1.19	0.05	1.24	0.05	0.05	0.10	0.00	1,040.67	1,040.67	0.05	0.00	1,041.77
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,107.12	1,202.88	1019.76	2,474,176	2,474,176
Total	1,107.12	1,202.88	1,019.76	2,474,176	2,474,176

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80

5.0 Energy Detail

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Annual										Mitigated					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	0.01	0.08	0.04	0.00		0.00	0.01		0.00	0.01	0.00	97.69	97.69	0.00	0.00	98.28
NaturalGas Unmitigated	0.01	0.08	0.04	0.00		0.00	0.01		0.00	0.01	0.00	97.69	97.69	0.00	0.00	98.28
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO
	kBTU/yr	Annual										Mitigated					
Apartments Mid Rise	1.83056e+006	0.01	0.08	0.04	0.00		0.00	0.01		0.00	0.01	0.00	97.69	97.69	0.00	0.00	98
Total		0.01	0.08	0.04	0.00		0.00	0.01		0.00	0.01	0.00	97.69	97.69	0.00	0.00	98

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	kWh	ROG	NOx	CO	SO2	Biol- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kWh					MT/yr					
Apartments Mid Rise	603884					0.00	0.00	0.00	0.00		0.00
Total						0.00	0.00	0.00	0.00		0.00

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	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	1.98	0.03	2.68	0.00		0.00	0.21		0.00	0.21	19.96	15.16	35.13	0.03	0.00	36.28
Unmitigated	1.98	0.03	2.68	0.00		0.00	0.21		0.00	0.21	19.96	15.16	35.13	0.03	0.00	36.28
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
	tons/yr										MT/yr					
Architectural Coating	0.26					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.66					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	1.02	0.02	1.39	0.00		0.00	0.20		0.00	0.20	19.96	13.10	33.07	0.03	0.00	34.17
Landscaping	0.04	0.02	1.29	0.00		0.00	0.01		0.00	0.01	0.00	2.06	2.06	0.00	0.00	2.11
Total	**1.98**	**0.04**	**2.68**	**0.00**		**0.00**	**0.21**		**0.00**	**0.21**	**19.96**	**15.16**	**35.13**	**0.03**	**0.00**	**36.28**

7.0 Water Detail

7.1 Mitigation Measures Water

Category	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					0.12	0.33	0.01	9.71
Unmitigated					0.12	0.33	0.01	9.71
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	CH4	CO2e	N2O	CO2e
	Mgal	lb/day							
Apartments Mid Rise	10.9459 / 6.90066					0.12	0.33	0.01	9.71
Total						0.12	0.33	0.01	9.71

8.0 Waste Detail

8.1 Mitigation Measures Waste

	ROG	NOx	CO	SO2	CH4	N2O	CO2e
	lb/day				MT/yr		
Mitigated					15.69	0.93	0.00	35.16
Unmitigated					15.69	0.93	0.00	35.16
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

[illegible]	Waste Disposed	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	tons	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Apartments Mid Rise	77.28					15.69	0.93	0.00	35.16
Total						**15.69**	**0.93**	**0.00**	**35.16**

Project Name: Anton Hacenda Apartments **Project Address:** 5729 West Las Positas Blvd.

Case No.: _____ **Residential Units:** 168 units **Sqft. of Com./Office/Mixed-Use Area:** 0

	Project Aspects that reduce Greenhouse Gas (GHG) Emissions	Yes	No	N/A	Comments
LU1: Support Infill and High Density Development					
LU1-2	Project is infill development within the existing urban fabric that helps complete, reinforce, and repair the surrounding area.	X			
LU1-3	Project is mixed-use development which incorporates higher density and affordable residential units consistent and with the Downtown Specific Plan with easy access to activity areas. (Applies to projects in the downtown area only).			X	
LU1-4	Project is transit-oriented development near BART station, along transportation corridors, in business parks, and/or in the downtown area.	X			
LU1-5	Project is high density development near and/or around transportation hubs and employment centers.	X			
LU1-6	Project is TOD (transit oriented development): located within 1/4 mile of commuter rail, BART, and other transportation hubs.	X			On Wheels Route 54
LU1-7	Project incorporates affordable housing on a vacant infill site.	X			
LU2: Support Mixed-use Infill and New Development near Local-serving Commercial Areas					
LU2-1	Project is located within convenient walking distance to work, residences, and services.	X			
LU2-2	Project provides new housing and/or new employment located within ½-mile walking/biking proximity of complementary land uses, including retail, employment, institutional, or recreational.	X			
LU2-4	Project reconnects streets and adds streets; minimizes parking to below code requirements; and includes attractive and functional urban plazas. (Applies to development near Pleasanton BART station in Hacienda and development near West Pleasanton BART)			X	
LU2-9	Project includes live-work units.			X	
LU2-10	Project incorporates elements of LEED for Neighborhood Development (LEED ND)			X	
LU3: Improve Transportation Efficiency through Design Improvements					
LU3-1	Project provides key services within a ½-mile walking distance of residential clusters or areas. (Applies to non-residential projects)			X	
LU3-2	Project provides building, landscape, and streetscape development design features that encourage transit, bicycle, and pedestrian access.	X			
LU3-3	Project encourages transit use and provides pedestrian and bicycle facilities.	X			
LU3-4	Project provides infrastructure to facilitate 'NextBus' technologies for tracking buses and predicting arrival times. (Applies to projects that include two or more bus shelters.)			X	

LU3-5	Project provides street improvements that meet the municipal street standards and AB 1358 Complete Streets and increase the safety, convenience, and efficiency of pedestrians, bicyclists, motorists, and transit riders.			X	
LU3-6	Project includes pedestrian and bicycle access through cul-de-sacs in new projects, except where prohibited by topography.			X	
LU3-7	Project includes neighborhood traffic calming to slow traffic speeds, reduce cut-through traffic and traffic-related noise, improve the aesthetics of the street, and increase safety for pedestrians, bicyclists, and vehicles.	X			

TR1: Improve and Increase Transit Ridership with Incentives. Partnerships. and Related Investments

TR1-6	The project offers discounted transit passes as part of HOA amenities, payable through the HOA dues. (Applies to residential development within 1/2 mile of transit.)	X			
	Project Aspects that reduce Greenhouse Gas (GHG) Emissions	**Yes**	**No**	**N/A**	**Comments**
TR1-9	The project includes a condition of approval to limit diesel vehicle idling. (Applies to projects with associated bus or truck traffic.)			X	

NM1: Enhance and Maintain a Safe, Convenient, and Effective System for Pedestrians and Bicyclists

NM1-1	Project provides a community trail, bike lane, staging area or other facility consistent with the Community Trails Master Plan or the Pedestrian and Bicycle Master Plan.	X			
NM1-4	Project provides bicycle-related improvements (i.e., work-place provision for showers, bicycle storage, bicycle lanes, etc.).	X			
NM1-5	Project provides bike parking. (Applies to non-residential and multi-family projects.)	X			
NM1-7	Project provides bicycle detection at signalized intersections.			X	
NM1-8	Project provides safe and convenient bike racks. (Applies to private schools, business and office projects.)			X	
NM1-9	Project completes a section of the Iron Horse Trail. (Applies to developments adjacent to the trail location.)			X	
NM1-10	Project contributes to the bicycle/pedestrian underpass at 580/680 interchange (Johnson Drive canal) for connection to Dublin. (Applies to new projects in the immediate vicinity.)			X	

TDM1: Use Parking Policy/Pricing to Discourage Single Occupancy Vehicle (SOV) Travel

TDM1-1	Project shares parking with adjacent use to reduce paved areas that contribute to urban heat islands and reduce stormwater infiltration.	X			
TDM1-2	Project separates fee-based parking from home rents/purchase prices or office leases. (Applies to projects within 1/2 mile of BART stations to increase housing and office affordability for those without a car or cars.)			X	

TDM1-3	Project tenants will participate in the City's TSM program to reduce auto trips. (Applies to non-residential projects.)			X	
TDM1-5	Project will participate in a parking demand management program.			X	
TDM1-6	Project provides one or more electric charging stations for plug-in vehicles.	X			
TDM1-7	Project provides motorcycle or scooter parking. (Applies to projects located in Downtown.)			X	

TDM2: Promote Alternatives to Work and School Commutes

TDM2-4	Project provides a neighborhood telecommuting center.	X			
TDM2-7	Project provides transit passes or other transit use incentives for an interim period to establish transit use patterns for employees. (Applies to new non-residential projects of more than 20,000 s.f. within 1/4 mile of transit)			X	
TDM2-10	Project provides dedicated parking spaces for carpool, vanpool, alternative-fuel, and car-share vehicles.			X	
TDM2-11	Project incorporates a car-sharing service.			X	

EC1: Use City Codes, Ordinances and Permitting to Enhance Green Building. Energy Efficiency, and Energy Conservation

EC1-1	Project meets LEED *Certified* rating level and achieves 25% above T-24, and incorporates new requirements for shade trees, cool roofs and landscape lighting. (Applies to civic projects and commercial projects over 20,000 s.f.)			X	
EC1-2	Project meets the City's residential green rating standard, including 25% above T-24, and incorporates new requirements for shade trees, cool roofs and landscape lighting. (Applies to residential projects.)	X			
	Project Aspects that reduce Greenhouse Gas (GHG) Emissions	**Yes**	**No**	**N/A**	**Comments**
EC1-3	Project provides light-colored paving material for roads and parking areas, as well as parking lot shade trees.		X		Shade trees provided. Light-colored paving is cost prohibitive.

EC4: Develop Programs to Increase Energy Efficiency and Conservation

EC4-4	Project incorporates solar tubes, skylights, and other daylighting systems within the design.		X		Project feasibility

ER1: Implement Local Ordinances and Permitting Processes to Support Renewable Energy

ER1-1	Project provides residential renewable energy installations (e.g., wind turbines). (Applies to residential projects.)		X		Site contraints/project feasibility

ER2: Develop Programs to Promote On-Site Renewable Energy in the Community

ER2-3	Project incorporates distributed generation, especially PV, solar thermal, solar hot water, and solar cooling, and/or providing bloom box or other fuel cell technologies.		X		Project feasibility

ER2-5	Project includes a solar grid to power one or more EV charging stations.	X			

SW2: Increase Recycling, Organics Diversion, and Waste Reduction Associated with the Entire Community

SW2-12	Project provides adequate space and logistics for handling of recyclable and compostable materials. (Applies to commercial and multifamily residential projects.)	X			

WA1: Conserve Community Water through Building and Landscape Design and Improvements

WA 1-7	Project incorporates a water-saving landscape plan that includes xeriscaping and drought-resistant planting in lieu of lawns.	X			
WA 1-8	Project limits lawn areas to designated play areas.	X			

WA3: Increase or Establish use of Reclaimed/Grey Water Systems

WA3-2	Project utilizes reclaimed wastewater.	X			Will connect to city infrastructure when available.
WA3-4	Project incorporates rain harvesting.		X		Using biorention areas instead