



MILPITAS PLANNING COMMISSION AGENDA REPORT

PUBLIC HEARING

Meeting Date: February 27, 2013

APPLICATION: MAJOR TENTATIVE MAP NO. MT12-0002, SITE DEVELOPMENT PERMIT NO. SD12-0003, CONDITIONAL USE PERMIT NO. UP12-0016 AND ENVIRONMENTAL IMPACT ASSESSMENT NO. EA12-0005

APPLICATION SUMMARY: A request to demolish an existing 19,600 square foot building with associated parking and construct 33 new single family residential units on a 2.7 acre site.

LOCATION: 375 Los Coches (APN 086-39-001 and 86-39-002)

APPLICANT: DRG Builders Inc., Doyle Heaton, 3480 Buskirk Ave, Ste 260, Pleasant Hill, A 94523

OWNER: Genesis United Methodist Church Inc, 1620 Oakland Road Ste D103, San Jose, CA 95131, Less Properties LLC, 1309 Laurelwood Road, Santa Clara, CA 95054

RECOMMENDATION: **Staff recommends that the Planning Commission: Adopt Resolution No.13-003 recommending project denial to the City Council; or**

Continue the item to the March 27, 2013 Planning Commission meeting

PROJECT DATA:

General Plan/
Zoning Designation: Town Center (TC)/ Town Center with Site & Architectural Overlay District (TC-S)

CEQA Determination: In accordance with California Environmental Quality Act (CEQA, Public Resources Code Section 15070(b), An Environmental Impact Assessment No. EA12-0004 was prepared and circulated between November 20, 2012 and December 11, 2012

PJ#: 2792

PLANNER: Tiffany Brown

ATTACHMENTS: A. Resolution No. 13-003
 B. Site plans

The attachments below were distributed on the previous Planning Commission Meeting of January 9, 2013. Attachments are also available online.

- C. Environmental Impact Assessment
- D. Phase I
- E. Traffic Study
- F. Noise Study
- G. Risk Assessment
- H. Greenhouse Gas/ Air Quality
- I. TALU Meeting Minutes January 24th
- J. TALU Meeting Minutes April 18th

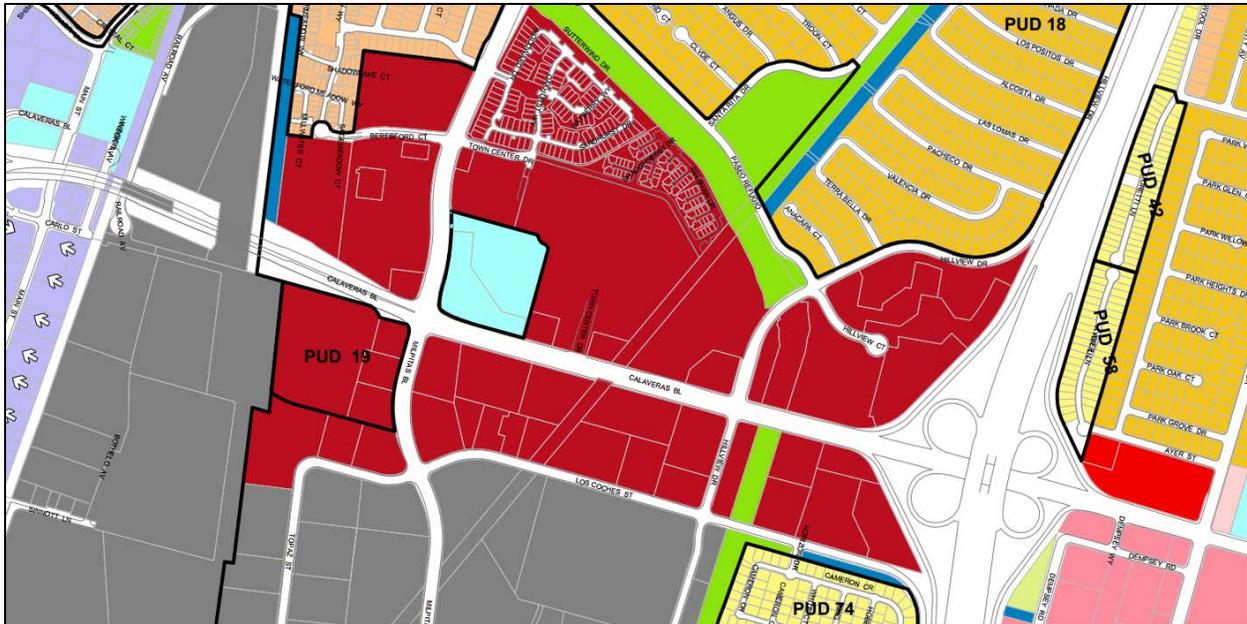
LOCATION MAP



 Project Site


No scale

ZONING MAP



 Town Center Zoning District

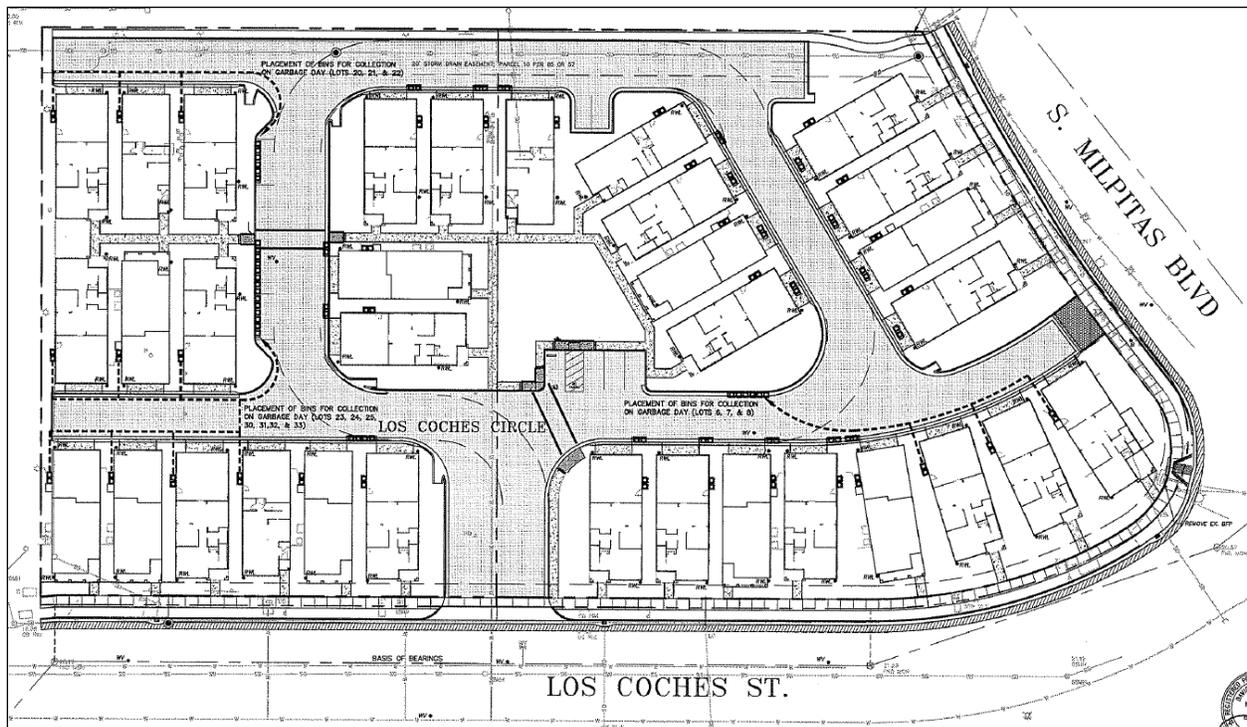
BACKGROUND

On September 21, 2010, the City Council reviewed and approved a zone change from Industrial Park to Town Center for properties south of West Calaveras in between Calaveras and Los Coches Street. The Town Center zoning district identifies a variety of uses that may be allowed or conditionally allowed including business and medical offices, commercial retail, and residential. Residential is a conditionally permitted use, meaning that the City considers residential as a special use which may be essential or desirable to the community, but which is not allowed as a matter of right, through a public hearing process. The conditional use permit provides flexibility so that the City has the discretion to approve or deny a proposed residential use, based on written findings of fact.

In December of 2011, Doyle Heaton with DRG Builders submitted a Preliminary Application for a request to demolish an existing 19,600 square foot building with associated parking and construct 33 new single family residential homes on approximately 2.66 acres. Staff identified specific concerns with single-family residential abutting South Milpitas Blvd, General Plan inconsistency related to land use incompatibility of single-family residential use at the proposed location and along this heavily-traveled arterial corridor (South Milpitas Blvd), and the loss of future commercial opportunity at this location along the South Milpitas Blvd./Los Coches intersection. DRG Builders continued the proposal for single-family residential. In response, staff scheduled the proposed project to be reviewed by the Transportation and Land Use Subcommittee (TALU) on January 24, 2012. The TALU is a subcommittee of the City Council with the role of providing further transparency and public input into the development review process regarding land use and development project issues. The TALU's responsibilities do not include direct decision making authority or direction that would circumvent the public hearing process for future discretionary actions of the Planning Commission or City Council. The TALU discussion for the proposed project is summarized as follows: (See Attachment H for TALU meeting minutes)

- Loss of Redevelopment Agency revenues.
- Jobs-Housing balance.
- Fiscal impact.
- Move the project forward in the best interest of the City.

Staff continued to process the proposed project through March 2012, addressing site design and incorporating commercial use into the proposed project. Staff reviewed traffic flow, safety, general plan consistency, and compatibility of single family residential land use along South Milpitas Blvd. Discussion also included incorporating the proposed project's internal pedestrian/vehicular circulation connectivity with an adjacent project being proposed by Braddock & Logan which was reviewed by the Planning Commission on December 12, 2012. The result of staff's review was shared with the project applicant. However, the applicant rejected any form of commercial land use for the project and requested a second TALU review.



On April 18, 2012, a second TALU review concluded that TALU was not opposed to residential along South Milpitas Blvd. (See Attachment I for TALU meeting minutes). TALU discussion is summarized as follows:

- No strong opinion.
- High-density residential with retail of interest.
- Not opposed to houses; however, concern about busy and dangerous intersection location for homes.
- Ensure buffering from street intersection.

Communications between staff and the applicant leading up to the preparation of this staff report have included non-support for the project without a commercial use along South Milpitas Blvd in the form of mixed use or stand alone, project review comments, and most recently, staff's intended recommendation for project denial. Throughout the process, the applicant's position has been that only single-family residential development is viable on the project site. Staff's recommendation for integrating commercial use into the project has also remained unchanged. The applicant has requested due process of his project which is identified in this staff report. Although staff has prepared findings for project denial with no conditions of approval, staff has also provided the Planning Commission with an option to continue the item. Continuing the item would only be beneficial if the Planning Commission developed specific direction to staff and the applicant that could allow the Commission to develop the required findings for approval as identified in the staff report. On January 9, 2013, the item was scheduled for hearing and the Planning Commission continued the item to February 27, 2013 at the request of the applicant.

PROJECT DESCRIPTION

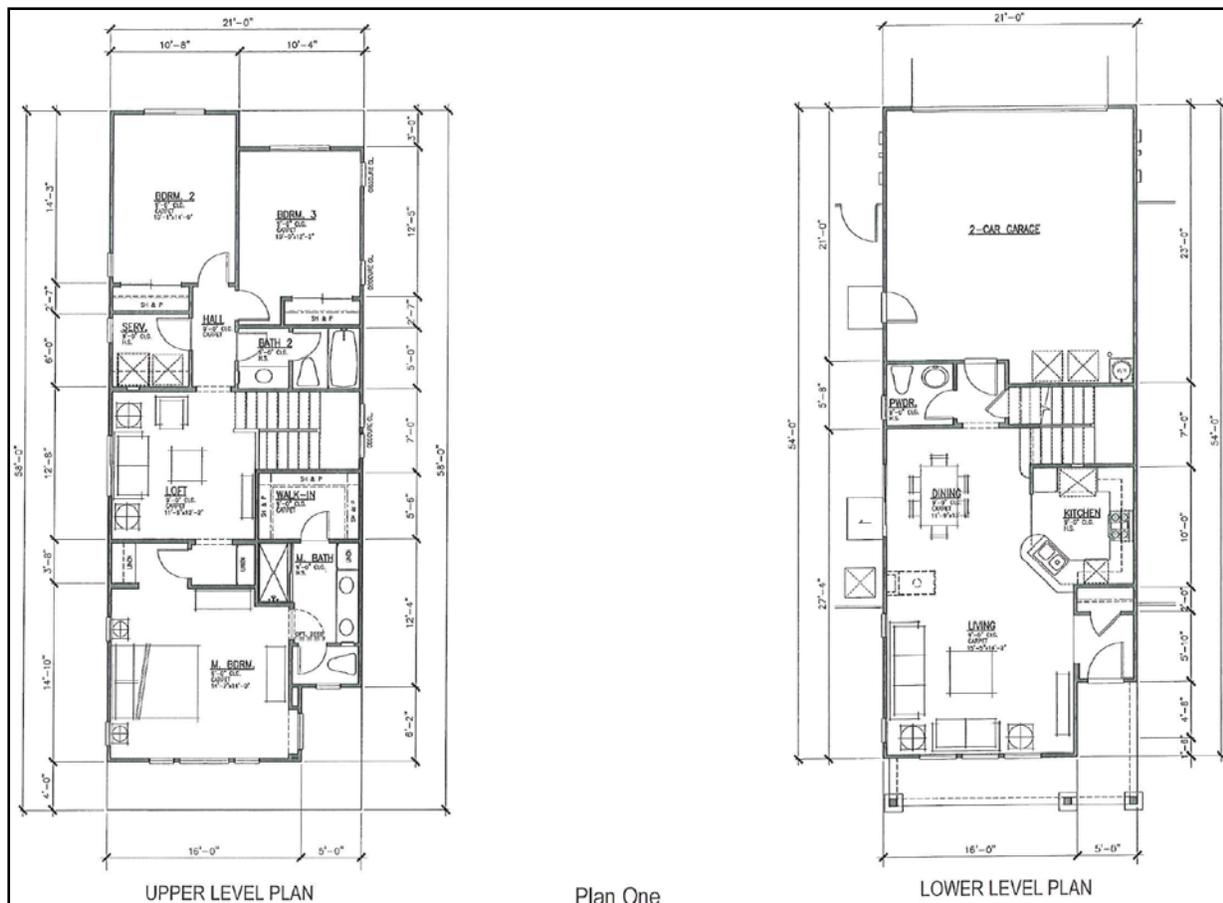
The project site, located at the corner intersection of South Milpitas Blvd. and Los Coches Street, consists of two parcels. The first lot is vacant and is located at 345 Los Coches Street on a 1.50 acre parcel. The second lot contains a 19,600 square foot vacant R&D building with associated parking lot on 1.16 acres. The proposal includes a Major Tentative Map, a Site Development Permit, and a Conditional Use Permit to demolish the existing vacant building and parking lot, and construct 33 new single-family residential units across both properties on the 2.7 acre site.

Just to the west of the site are several vacant buildings that include a residential project being planned for residential development. Properties to the north are zoned Town Center and are currently professional offices. The property is bound to the east by South Milpitas Blvd. and to the south is a business park zoned Heavy Industrial. A vicinity map of the subject site location is included on page 3.

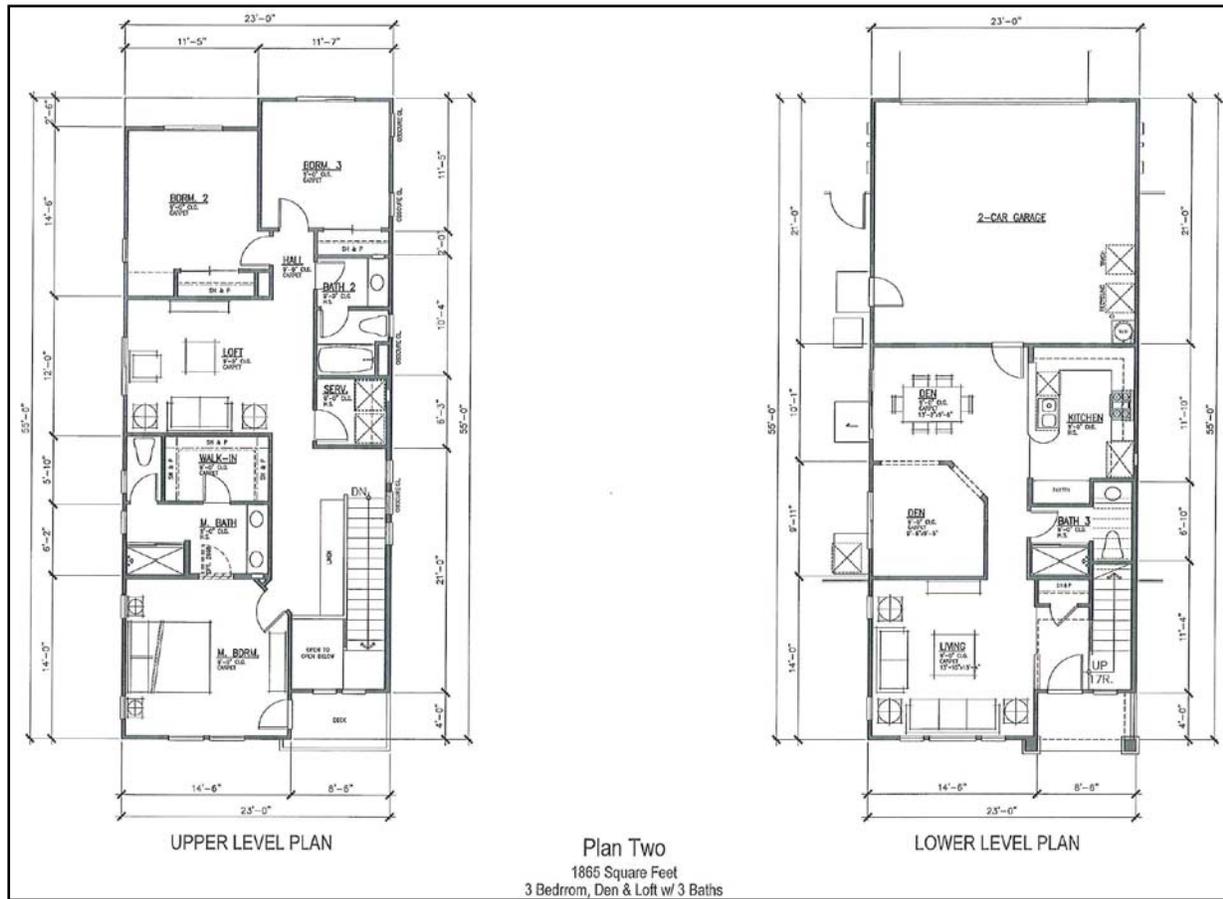
Architecture

The proposal includes the following two-story floor plans:

Floor Plan 1: 1,652 square feet. Three bedrooms (max) and include a rear entry two car garage.



Floor Plan 2: 1,734 square feet. Three bedrooms (max) and include a rear entry two car garage.



The homes are proposed in four different architectural styles. All homes share a use of composition asphalt shingles (except flat concrete tile on Tuscan), stucco siding, and metal roll-up garage doors. The four styles are as follows:

1. "Tuscan" features a stone veneer entry portal, small balcony above, and hipped roof.
2. "Traditional" features upper window wood siding appearance, full-width lower roof overhang, and minor front gable roof.
3. "Craftsman" features stone and wood pillar entries, lower and upper front roof gables with wood siding appearance, roof eave bracketing, and lower window wood panel surround.
4. "English" features lower wood like bay window and upper balcony. Window features are very similar to Tuscan and Craftsman.

For further details about styles and materials used, refer to Attachment B.



Under the City's Site and Architectural Overlay, the proposed project requires architectural review and special development standards beyond those for the underlying zoning designation. The Site and Architectural Overlay Zoning allows the Planning Commission to establish more stringent regulations than those otherwise specific for the Zoning District.

Staff has identified the four architectural styles above. Further details are identified in the project architectural elevations. If the proposed project were to advance, staff will recommend additional detailing and more consistent use of quality materials and siding consistent with each architectural style, and the possibility of adding at least one more floor plan for greater improved variety and neighborhood appearance.

Vehicular access

Primary site access will be from a main entrance along Los Coches Street with a secondary access along Topaz Street (which is an extension of Los Coches Street). All traffic from the project will enter onto Los Coches Street. A Traffic Study was prepared by Abrams Associates and concludes that the proposed project will not create a significant impact on traffic for the major connecting streets such as:

1. Calaveras Boulevard / Abel Street
2. Calaveras Boulevard / Milpitas Boulevard
3. Calaveras Boulevard / Town Center Drive
4. Calaveras Boulevard / Hillview Drive
5. Milpitas Boulevard / Los Coches Street
6. Milpitas Boulevard / Turquoise Street

Refer to the Environmental Impact Analysis for further information on traffic impacts.

Pedestrian and Bicycle Facilities

The proposed project includes sidewalks along South Milpitas Blvd, Los Coches, and Topaz Street fronting the project site. Although the proposed plans show incomplete sidewalks on site, sidewalks would be required throughout the project site. Bicycle lanes are provided on Milpitas Boulevard in the vicinity of the project site.

Trail connections

Part of the project proposal includes creating a pedestrian trail connection to the adjacent proposed 80-unit residential project, which would lead to a future trail along Wrigley Creek. Enhancements include an architectural stone portal with a trail identification sign and paved sidewalk with associated landscaping. This connects both residential projects and allows pedestrians a safe walkway along the Wrigley Creek Trail to the Beresford Shopping Center just north of Calaveras Blvd.

Zoning - Development Standards

Table 1 below demonstrates the project's compliance with the City's Zoning Ordinance Development Standards.

Table 1
Development Standards

	Zoning Ordinance	Proposed
<u>Density</u> (Min-Max)	1-40 dwellings per gross acre	12.4 dwellings per gross acre
<u>Setbacks</u> (Minimum)	Determined through Site Development Permit process	See discussion below
<u>Lot Coverage</u> (Maximum)	None	Not applicable
<u>Building Height</u> (Maximum)	35 ft. or three stories	Two stories (Not to exceed 35 ft.)
<u>Parking</u> (Minimum) See discussion below.	79 spaces	79 spaces
<u>Open space</u> (Minimum)	0.66 acres (private) 0.99 acres (public)	0.86 acres (private)

Table 2 below demonstrates the typical yard setbacks.

Table 2
Typical yard setbacks

Setbacks (Minimum)	Typical Lot
Front Yard, Facing Milpitas Blvd	15'+10' monolithic walk & landscaping
Front Yard Facing Los Coches	6.5'+10' monolithic walk & landscaping
Front Yard Interior residence	3.9' along public park 8.7'
Side Yard	3'
Rear Yard	4'

Although proposed on-site sidewalks are incomplete, sidewalks are required within the entire project. It does not appear that proposed setbacks would be reduced.

Parking, Traffic, and Circulation

Table 3 below demonstrates how the project complies with the City’s parking standards. Each residence has a two-car garage.

Table 3
Parking Standards

Parking Ordinance	Spaces Required	Spaces provided
Three bedroom units	66	66 covered parking spaces (2 car garage)
Guest parking (20% of total required)	13	13 uncovered off street parking on site
Total parking required	79	Total provided: 79

The project provides the required amount of parking through a combination of covered spaces in garages and on-street parking adjacent to the homes.

Recreational Open Space

According to Title XI (Zoning) Section 9 (“Improvements: Dedication of land or payment of fee or both, for recreational purposes”), of the City’s Municipal Code, every applicant who subdivides land shall dedicate a portion of such land, pay a fee, or do both for the purpose of providing park and recreational facilities to serve future residents of such subdivision. The amount of recreational area is divided into public and private amenities.

The estimated population density for a detached single-family project is 3.99 persons per dwelling unit. When computing the formula, the project requires 0.66 acres of recreation space. A total of 0.40 acres is required for public recreation, while 0.26 acres is required for private recreational/useable open space.

Private recreational/useable open space

“Usable open space” means any open space, the smallest dimension of which is at least 4 ½ feet and which is not used as storage or for movement of motor vehicles. Balconies, porches, or roof decks may be considered usable open space when properly developed for work, play or outdoor living areas. The project is providing a total of 14,072 square feet of private open space: 12,194 square feet of private open space and a 1,878 square foot tot lot.

Public recreational open space

The applicant has opted to pay \$808,712.00 to the City’s park in lieu fund. The contribution to the fund completes their obligation towards public recreational open space.

ADOPTED PLANS AND ORDINANCE CONSISTENCY

General Plan

The Town Center designation, per the general plan, states that it should provide for a variety of commercial, civic and residential uses appropriate to the Center’s role as the functional and visual focus of Milpitas. The Town Center is a meeting place and a market place, the home of commercial and professional firms, an entertainment area and a place for restaurants and hotels. Because of this unique and relatively intensive mix of activities, very high density residential developments (up to 40 units per acre) may be permitted within the Town Center because of the increased economic support the residents would offer to the commercial uses. The general plan lists Land Use Principles and Policies to help enforce the intent of the general plan. The table below outlines the project’s consistency with applicable General Plan Guiding Principles and Implementing Policies:

Table 4
General Plan Consistency

Guiding Principles and Implementing Policies	Consistency Finding
<i>2.a-G-2: Maintain a relatively compact urban form.</i>	Consistent.
<i>2.a-G3. Provide for a variety of housing types and densities that meet the needs of individuals and families.</i>	Inconsistent.
<i>2.a-G-4: The Town Center will be the “heart” of Milpitas’ civic, cultural, business, and professional life.</i>	Inconsistent.
<i>2.a-I-20: Develop the Town Center as an architecturally distinctive mixed-use complex which will add to Milpitas’ identity and image.</i>	Inconsistent.
<i>2.a-I-21: Require development in the Town Center to conform to the adopted design principles/requirements of the Milpitas Redevelopment Agency.</i>	Inconsistent.
<i>3.d-I-25: Where appropriate, require new development provide public access points to the trail system and/or contribute to staging areas.</i>	Consistent.
<i>3.d-I-27: Require sidewalks on both sides of the street as a condition of development approval, where appropriate with local conditions.</i>	Consistent.

The above-identified general plan principles and policies provide the basis from which staff has developed the project analysis and from which the Planning Commission must make its recommendation for project acceptance or denial. The project lacks General Plan consistency due to the proposed placement of single-family residential along a heavily traveled arterial roadway and designated truck route (South Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family, commercial, or mixed-use design to achieve such compatibility. In addition, introducing a single-family residential land use at this specific project site location is contrary to developing the Town Center zoning district as an architecturally distinctive mixed-use complex which will add to Milpitas’ identity and image.

Subdivision Map Act Consistency

The proposed project including its subdivision, design and improvements, is inconsistent with the General Plan, due to the proposed placement of single-family residential along a heavily-traveled arterial roadway and designated truck route (South Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family, commercial, or mixed-use design to achieve such compatibility. In addition, introducing a single-family residential land use at this specific project site location is contrary to developing the Town Center zoning district as an architecturally distinctive mixed-use complex which will add to Milpitas' identity and image.

Zoning Ordinance Consistency

Under the City's Site and Overlay Zoning District, the proposed project requires site review. The Milpitas Municipal Code does not allow for the establishment of uses having qualities which are not properly related to their sites, surroundings or environmental setting. Where the use is proposed, the Planning Commission may establish more stringent regulations than those otherwise specific for the Zoning District. The Planning Commission's decision should be based on evidence in the public record, concluding with findings of fact. Those findings are identified below.

Site Development Findings

1. The layout of the site and design of the proposed buildings, structures and landscaping are compatible and aesthetically harmonious with adjacent and surrounding development.

Staff Comment: This finding cannot be applied due to the proposed placement of single-family residential along a heavily-traveled arterial roadway and designated truck route (South Milpitas Blvd.), the placement of single-family residential adjacent to industrial and commercial uses, and the lack of integrating the residential buildings and residential use into a commercial/industrial setting along an arterial roadway as intended within the context of the Town Center Zoning District.

2. The project is consistent with the Milpitas General Plan.

Staff Comment: This finding cannot be applied due to the proposed placement of single-family residential along a heavily traveled arterial roadway and designated truck route (South Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family, commercial, or mixed-use design to achieve such compatibility. Introducing a single-family residential land use at this specific project site is contrary to developing the Town Center Zoning District as an architecturally distinctive mixed-use complex which will add to Milpitas' identity and image.

3. The project is consistent with the Milpitas Zoning Ordinance.

Staff Comment: This finding cannot be applied due to the proposed placement of single-family residential along a heavily-traveled arterial roadway and designated truck route (South Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family,

commercial, or mixed-use design to achieve such compatibility. The proposed single-family residential project does not implement and is contrary to implementing the General Plan's vision for the overlay district as an architecturally distinctive mixed-use town center complex which will add to Milpitas' identity and image.

Conditional Use Permit Findings

1. The proposed use at the proposed location will not be detrimental or injurious to property or improvements in the vicinity nor to the public health, safety, and general welfare.

Staff Comment: This finding cannot be applied due to the proposed placement of single-family residential along a heavily-traveled arterial roadway and designated truck route (South Milpitas Blvd.), the placement of single-family residential adjacent to industrial and commercial uses, and the lack of integrating the residential land use into a commercial and industrial setting, and along an arterial roadway as intended within the context of the Town Center Zoning District.

2. The project is consistent with the Milpitas General Plan.

Staff Comment: This finding cannot be applied due to the proposed placement of single-family residential along a heavily-traveled arterial roadway and designated truck route (South Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family, commercial, or mixed-use design to achieve such compatibility. Introducing a single-family residential land use at this specific project site is contrary to developing the Town Center Zoning District as an architecturally distinctive mixed-use complex which will add to Milpitas' identity and image.

3. The project is consistent with the Milpitas Zoning Ordinance.

Staff Comment: This finding cannot be applied due to the proposed placement of single-family residential along a heavily-traveled arterial roadway and designated truck route (South Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family, commercial, or mixed-use design to achieve such compatibility. The proposed single-family residential project does not implement and is contrary to implementing the General Plan's vision for the overlay district as an architecturally distinctive mixed-use town center complex which will add to Milpitas' identity and image.

ENVIRONMENTAL REVIEW

Staff conducted an initial environmental assessment of the project in accordance with the California Environmental Quality Act (CEQA). Staff prepared an initial study and distributed a Notice of Intent to Adopt a Mitigated Negative Declaration because the project may have potentially significant impacts on the environment. Mitigation measures are included to reduce those identified impacts to a less than significant level. The mitigated negative declaration was circulated for public review between December 21, 2012 and January 9, 2013.

PUBLIC COMMENT/OUTREACH

Staff publicly noticed the application in accordance with City and State law. As of the time of writing this report, there have been no inquiries from the public.

CONCLUSION

As identified throughout the staff report, the site development challenge is in preparing a quality project that represents the best interest of the City in terms of land use, especially along South Milpitas Boulevard. This site is currently bounded by an arterial and collector roadway, industrial and commercial uses. As summarized in the project background, staff provided an initial recommendation to integrate some form of commercial use i.e. mixed-use or stand-alone along South Milpitas Boulevard. According to the applicant, there is market demand for single-family residential, as proposed for the project site and that the project meets the city's criteria for residential development. Staff has analyzed the project, taking into consideration the applicant's proposal and request to continue with the entitlement process. The staff analysis of the project documentation is complete. Staff recommends project denial based upon the project record, the City's General Plan guiding principles and policies and implementing Zoning Ordinance, and the inability to make the required findings for both site development and conditional use permit.

ALTERNATIVES

1. The Planning Commission may adopt Resolution No.13-003 recommending project denial to the City Council for Major Tentative Map No. 12-0002, Site Development Permit No. SD12-0003, and Conditional Use Permit No. UP12-0016.

This action would be noted and taken into consideration at the City Council meeting.

2. The Planning Commission continue the item, directing Staff to work with the applicant on project re-design that would incorporate commercial use that would not preclude residential/commercial mixed-use, consistent with the intent of the Town Center zoning district.

This action would result in continuing the item to a date in the future where any modifications as discussed by the Commission would be incorporated accordingly.

3. The Planning Commission can continue the item to the March 27, 2013 Planning Commission meeting, directing Staff and the applicant to continue refining and improving the proposed project and complete the conditions of approval in compliance with all site and architectural development standards.

This action would result in a returning to the Planning Commission with conditions of approval.

RECOMMENDATION

STAFF RECOMMENDS THAT the Planning Commission Adopt Resolution No.13-003 recommending project denial to the City Council; or continue the item to the March 27, 2013 Planning Commission meeting.

Attachments:

- A. Resolution No. 13-003

B. Site plans

The attachments below were distributed on the previous Planning Commission Meeting of January 9, 2013. Attachments are also available online.

C. Environmental Impact Assessment

D. Phase I

E. Traffic Study

F. Noise Study

G. Risk Assessment

H. Greenhouse Gas/ Air Quality

I. TALU Meeting Minutes January 24th

J. TALU Meeting Minutes April 18th

RESOLUTION NO.13-003

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MILPITAS, CALIFORNIA, RECOMMENDING DENIAL OF A VESTING MAJOR TENTATIVE MAP NO. MT12-0002, SITE DEVELOPMENT PERMIT NO. SD12-0003, CONDITIONAL USE PERMIT NO. UP12-0016 AND ENVIRONMENTAL IMPACT ASSESSMENT NO. EA12-0005, TO DEMO EXISTING STRUCTURE WITH ASSOCIATED PARKING LOT ON 2.7 ACRES AND CONSTRUCT 33 NEW SINGLE FAMILY DETACHED RESIDENTIAL UNITS, LOCATED AT 375 LOS COCHES STREET

WHEREAS, on December 27, 2011, an application was submitted by Doyle Heaton representing DRG Builders, 3480 Buskirk Ave, Ste 260, Pleasant Hill, A 94523, to allow the demolition of existing structures and the construction of 33 single-family dwellings, with associated streets, and sidewalks. The property is located within the Town Center Zoning District (APN: 086-28-041, 086-38-003); and

WHERE AS, Staff identified specific concerns with single family residential abutting South Milpitas Blvd, General Plan inconsistency related to land use incompatibility of single family residential use at the proposed location and along this heavily traveled arterial corridor and designated truck route (South Milpitas Blvd), and the loss of future commercial opportunity at this location along the South Milpitas Blvd./Los Coches Intersection; and

WHERE AS, the Transportation and Land Use Subcommittee (TALU) reviewed the proposed project on January 24, 2012 and April 18, 2012 and provided comments regarding: the loss of Redevelopment Agency revenues, jobs-housing balance, fiscal impact, to move the project forward in the best interest of the City, interested in the high density residential with retail, concern about busy and dangerous intersection location for homes, ensure buffering from street intersection; and

WHERE AS, Communications between staff and the applicant leading up to the Planning Commission hearing have included non-support for the project due to General Plan and Zoning Ordinance inconsistencies; and

WHERE AS, on January 9, 2013, the item was scheduled for hearing and the Planning Commission continued the item to February 27, 2013 at the request of the applicant; and

WHERE AS, on February 27, 2013, the Planning Commission held a duly noticed public hearing on the subject application, and considered evidence presented by City staff, the applicant, and other interested parties.

NOW THEREFORE, the Planning Commission of the City of Milpitas hereby finds, determines and resolves as follows:

Section 1: The recitals set forth above are true and correct and incorporated herein by reference.

Section 2: General Plan and Subdivision Map Act

The proposed project including its subdivision, design, and improvements is inconsistent with the General Plan due to the proposed placement of single-family residential along a heavily traveled arterial roadway and designated truck route (South Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family, commercial, or mixed-use design to achieve such compatibility. In addition, introducing a single-family residential land use at this specific project site location is contrary to developing the Town Center zoning district as an architecturally distinctive mixed-use complex which will add to Milpitas' identity and image. In accordance with the Subdivision Map Act, the discharge of waste from the proposed major subdivision into the existing community sewer system would not result in violation of existing requirement of the California Regional Water Board.

Section 3: Zoning Ordinance

The project is not consistent with the Milpitas Zoning Ordinance due to the proposed placement of single-family residential along a heavily-traveled arterial roadway and designated truck route (S. Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family, commercial, or mixed-use design to achieve such compatibility. The proposed single-family residential project does not implement, and is contrary to implementing the General Plan's vision for the overlay district as an architecturally distinctive mixed-use town center complex which will add to Milpitas' identity and image.

Section 4: Site Development Findings

1. The layout of the site and design of the proposed buildings, structures and landscaping are not compatible and not aesthetically harmonious with adjacent and surrounding development due to the proposed placement of single-family residential along a heavily traveled arterial roadway and designated truck route (S. Milpitas Blvd.), the placement of single-family residential adjacent to industrial and commercial uses, and the lack of integrating the residential buildings and residential use into a commercial/industrial setting along an arterial roadway as intended within the context of the Town Center Overlay Zoning District.
2. The project is not consistent with the Milpitas General Plan due to the proposed placement of single-family residential along a heavily traveled arterial roadway and designated truck route (S. Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family, commercial, or mixed-use design to achieve such compatibility. Introducing a single-family residential land use at this specific project site is contrary to developing the Town Center Overlay Zone as an architecturally distinctive mixed-use complex which will add to Milpitas' identity and image.
3. The project is not consistent with the Milpitas Zoning Ordinance due to the proposed placement of single-family residential along a heavily traveled arterial roadway and designated truck route (S. Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family, commercial, or mixed-use design to achieve such compatibility. The proposed single-family residential project does not implement and is contrary to implementing, the General Plan's vision for the overlay district as an architecturally distinctive mixed-use town center complex which will add to Milpitas' identity and image.

Section 5: Conditional Use Permit Findings

1. The proposed use at the proposed location will be detrimental or injurious to property or improvements in the vicinity and to the public health, safety, and general welfare due to the proposed placement of single-family residential along a heavily traveled arterial roadway and designated truck route (S. Milpitas Blvd.), the placement of single-family residential adjacent to industrial and commercial uses, and the lack of integrating the residential land use into a commercial and industrial setting, and along an arterial roadway as intended within the context of the Town Center Overlay Zoning District.

2. The project is not consistent with the Milpitas General Plan due to the proposed placement of single-family residential along a heavily traveled arterial roadway and designated truck route (S. Milpitas Blvd.) with no separation, buffering, or transitional use such as multi-family, commercial, or mixed-use design to achieve such compatibility. Introducing a single-family residential land use at this specific project site is contrary to developing the Town Center Overlay Zone as an architecturally distinctive mixed-use complex which will add to Milpitas' identity and image.

Section 6: The Planning Commission of the City of Milpitas hereby recommends denial to the City Council for permits MT12-0002, SD12-0003, and UP12-0016, subject to the above Findings.

PASSED AND ADOPTED at a regular meeting of the Planning Commission of the City of Milpitas on February 27, 2013.

Chair

TO WIT:

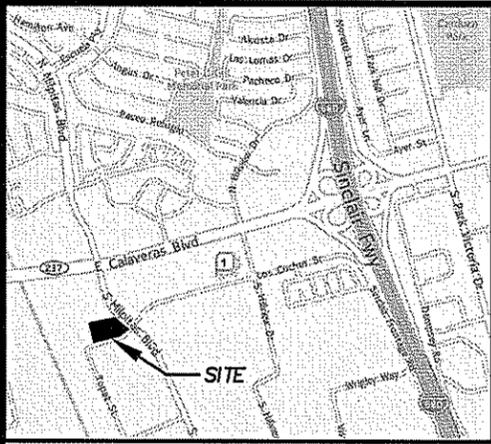
I HEREBY CERTIFY that the following Resolution was duly adopted with a recommendation to City Council at a regular meeting of the Planning Commission of the City of Milpitas on February 27, 2013, and carried by the following roll call vote:

COMMISSIONER	AYES	NOES	ABSENT	ABSTAIN
Lawrence Ciardella				
John Luk				
Rajeev Madnawat				
Sudhir Mandal				
Zeya Mohsin				
Gurdev Sandhu				
Demetress Morris				
Garry Barbadillo				

TENTATIVE SUBDIVISION MAP

FORTY TWO LOT SUBDIVISION FOR TOWNHOUSE PURPOSES

345 AND 375 LOS COCHES

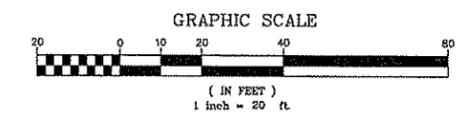
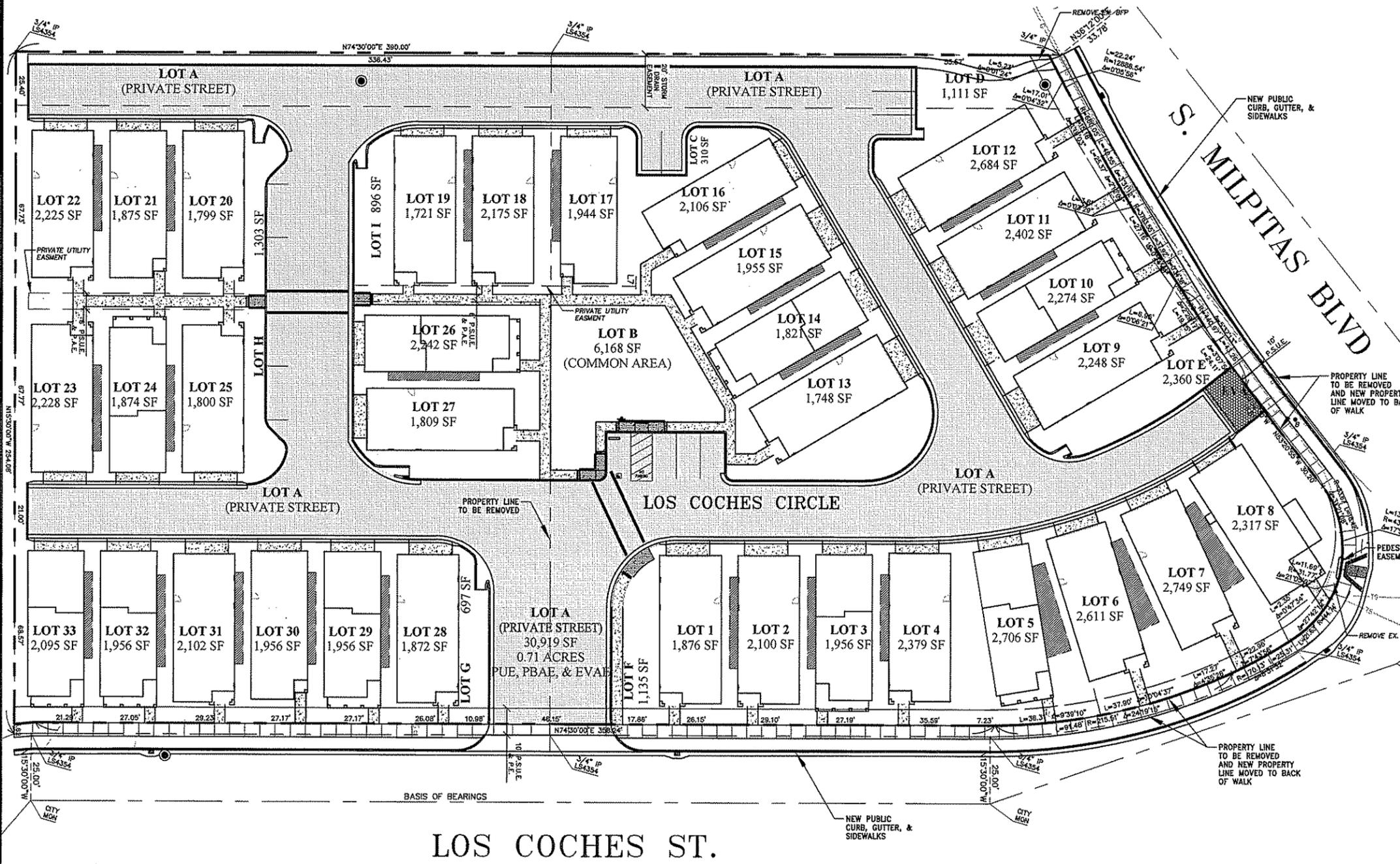


VICINITY MAP NTS

LEGEND:

- STANDARD MONUMENT BOX FOUND AS NOTED
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- P.A.E.
- P.E.
- P.I.E.E.
- P.S.D.E.
- P.S.E.
- PR.S.E.
- P.S.S.E.
- P.S.U.E.
- (R)
- S.F.

- STANDARD MONUMENT BOX FOUND AS NOTED
- 3/4" IRON PIPE SET, TAGGED "LS 6396"
- 3/4" IRON PIPE FOUND AS NOTED
- DISTINCTIVE EXTERIOR BORDER LINE
- PROPERTY LINE ESTABLISHED BY THIS MAP
- CENTERLINE
- EASEMENT LINE
- SIDEYARD EASEMENT LINE ESTABLISHED BY THIS MAP
- PEDESTRIAN ACCESS EASEMENT
- PLANTING EASEMENT
- PRIVATE INGRESS AND EGRESS EASEMENT
- PRIVATE STORM DRAIN EASEMENT
- PUBLIC SERVICE EASEMENT
- PRIVATE SERVICE EASEMENT
- PRIVATE SANITARY SEWER EASEMENT
- PRIVATE SERVICE AND UTILITY EASEMENT
- RADIAL
- SQUARE FEET



GENERAL NOTES

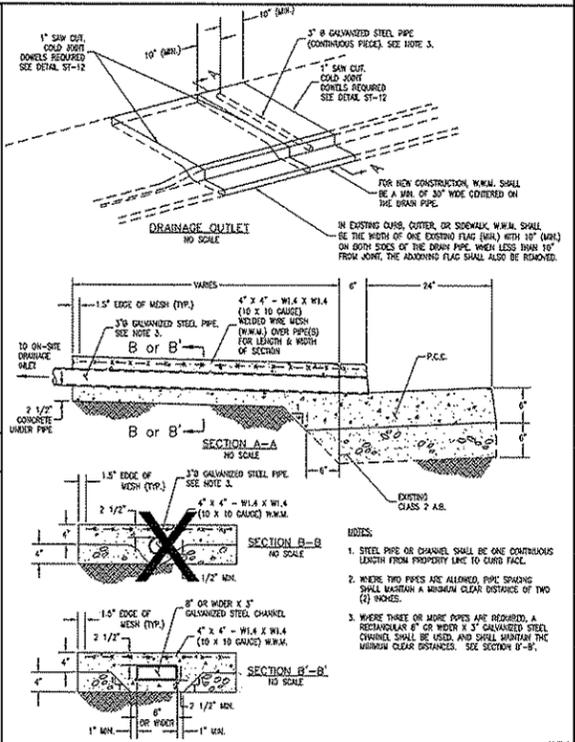
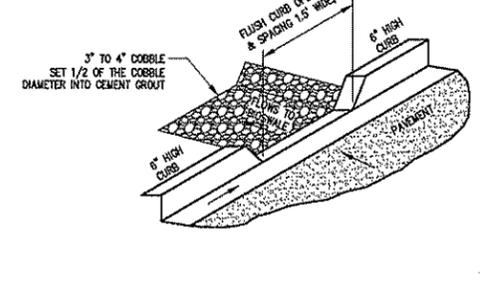
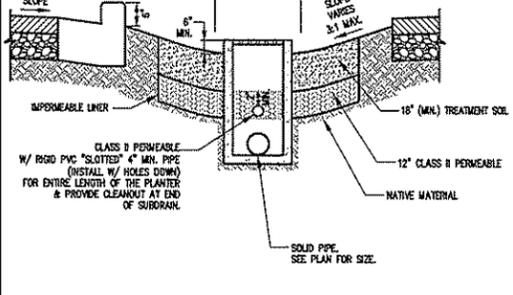
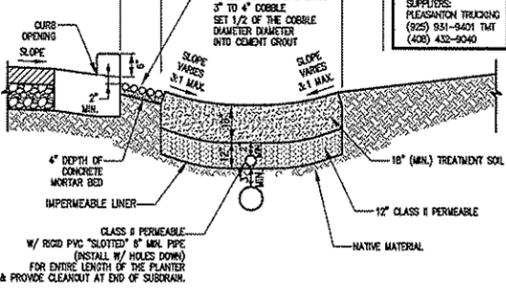
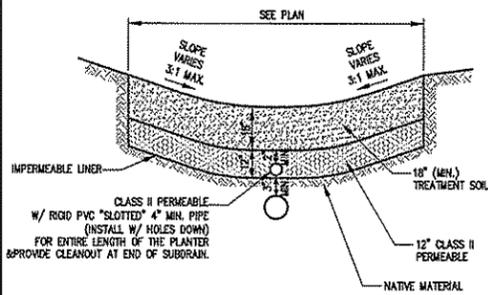
NAME:	345 AND 375 LOS COCHES
OWNER:	345 LOS COCHES STREET GENESIS UNITED METHODIST CHURCH INC.
	375 LOS COCHES STREET LESS PROPERTIES, LLC 1309 LAURELWOOD RD SANTA CLARA, CALIFORNIA 95054
SUBDIVIDER:	SAN RAMON LAND, LLC A CALIFORNIA LIMITED LIABILITY COMPANY
CIVIL ENGINEER:	UNDERWOOD & ROSENBLUM, INC. DAVE B VOORHIES, P.E. 1530 OAKLAND ROAD, SUITE A114 SAN JOSE, CA 95131 RCE 26429 EXPIRES 3-31-14
ASSESSORS PARCEL NUMBER:	APN 086-39-001 APN 086-39-002
EXISTING USE:	COMMERCIAL
PROPOSED USE:	33 RESIDENTIAL UNITS
EXISTING ZONING:	TOWN CENTER
WATER:	CITY OF MILPITAS
SANITARY SEWER:	CITY OF MILPITAS
STORM DRAIN:	CITY OF MILPITAS
GAS:	PG&E
ELECTRICAL:	PG&E
TELEPHONE:	AT&T
EXISTING NUMBER OF LOTS:	2
PROPOSED NUMBER OF LOTS:	42
PROPOSED MAXIMUM NUMBER OF TOWNHOMES:	33 TOWNHOMES
TOTAL SITE ACREAGE:	2.58 ± ACRES
FLOOD ZONE:	ZONE AH - SHALLOW FLOODING, 1-3FT, USUALLY AS PONDING AREAS.

<p>UNDERWOOD & ROSENBLUM, INC. civil engineers and surveyors 1530 OAKLAND ROAD, SUITE A114 SAN JOSE, CA 95131 RCE 26429 EXPIRES 3-31-14</p> <p style="font-size: 2em; font-weight: bold; letter-spacing: 0.5em;">UR</p>	<p>375 LOS COCHES STREET CASTLE COMPANY MILPITAS CALIFORNIA</p>
<p>COVER SHEET TENTATIVE MAP</p>	
<p>Date: 12-05-2012 Scale: 1"=20' Design By: DV Job: J11076 Sheet: T1</p>	

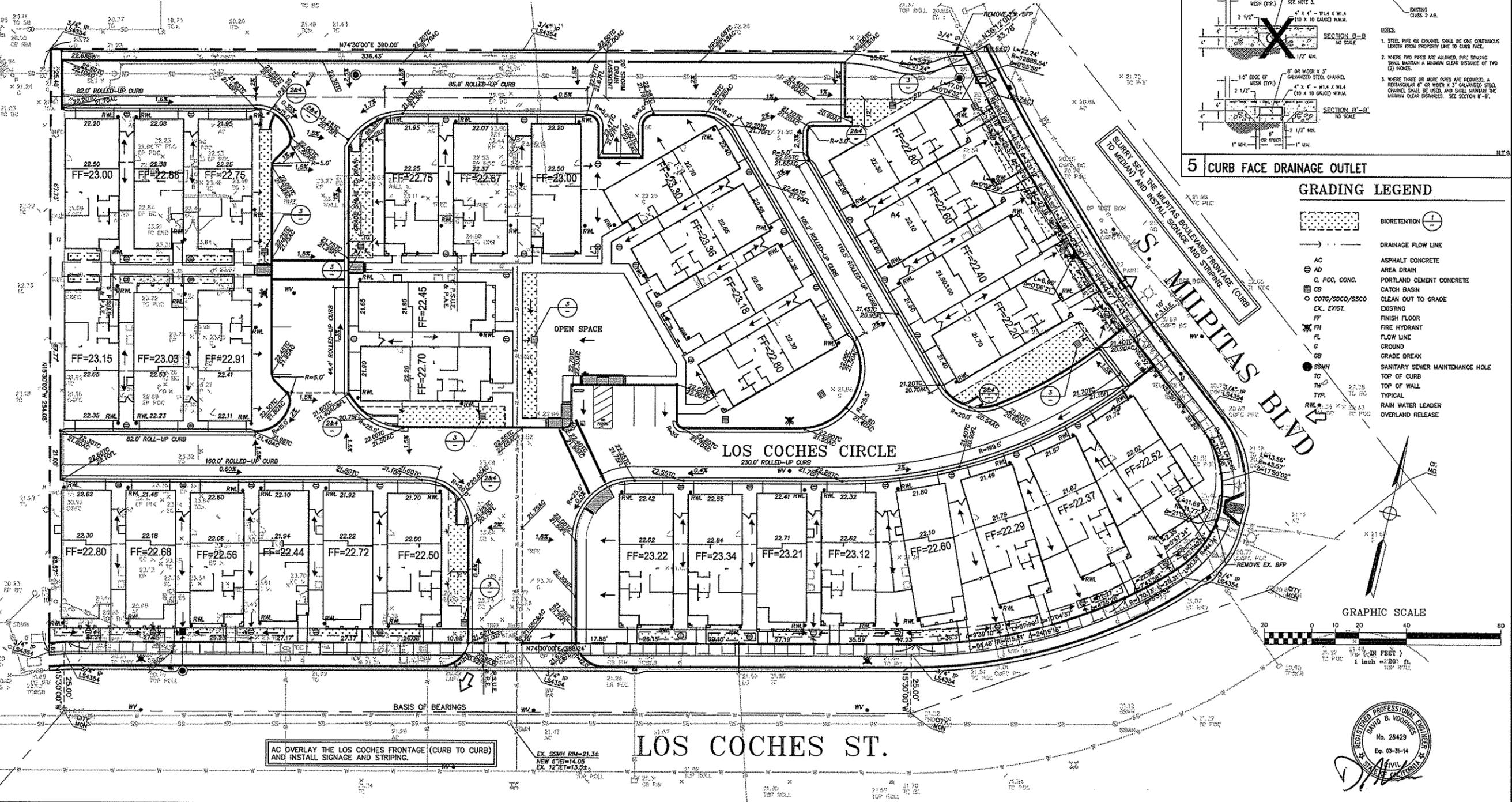
SOIL CONSIDERATIONS:
 THE CONTRACTOR MUST PROVIDE A SOIL CERTIFICATE OF COMPLIANCE TO THE CITY OF MILPITAS ENVIRONMENTAL SERVICES DIVISION TO VERIFY THAT THE SOIL USED IN LANDSCAPE BASED TREATMENT MEASURES MEETS BASMAA SOIL SPECIFICATIONS INCLUDED IN THE MOST RECENT VERSION OF THE CLEAN WATER PROGRAM'S C.S STORMWATER TECHNICAL GUIDANCE MANUAL.

SEE PLAN
 COBBLES AT CURB OPENING
 SET 1/2" OF COBBLE
 DIAMETER DIAGONAL
 INTO CEMENT GROUT

SOILS MUST PERCOLATE AT A RATE OF 5-10 INCHES PER HOUR. PROVIDE A LABORATORY ANALYSIS ONCE APPLIED.
 POSSIBLE SOIL SUPPLIERS:
 PLEASANTON TRACKING (925) 851-8401 THT (408) 432-9040

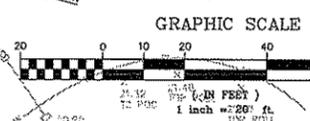


1 BIO-RETENTION DETAIL N.T.S. 2 SWALE AT CURB OPENING N.T.S. 3 SWALE - AT INLET N.T.S. 4 CURB OPENING - SECTION N.T.S. 5 CURB FACE DRAINAGE OUTLET N.T.S.



GRADING LEGEND

	BIORETENTION
	DRAINAGE FLOW LINE
	ASPHALT CONCRETE
	AREA DRAIN
	PORTLAND CEMENT CONCRETE
	CATCH BASIN
	CLEAN OUT TO GRADE
	EXISTING
	FINISH FLOOR
	FIRE HYDRANT
	FLOW LINE
	GROUND
	GRADE BREAK
	SANITARY SEWER MAINTENANCE HOLE
	TOP OF CURB
	TOP OF WALL
	TYPICAL
	RAIN WATER LEADER
	OVERLAND RELEASE



DATE: _____

REVISIONS: _____

DESC: _____

UNDERWOOD & ROSENBLUM, INC.
 civil engineers and surveyors
 375 LOS COCHES STREET
 CASTLE COMPANY
 MILPITAS CALIFORNIA

GRADING & STORM CONTROL PLAN
 TENTATIVE MAP

Date 12-05-2012
 Scale 1"=20'
 Design By: DV
 Job J11076
 Sheet T2

PERVIOUS AND IMPERVIOUS SURFACES COMPARISON TABLE			
TOTAL SITE (ACRES)	PROJECT PHASE NUMBER		ONE (1)
	EXISTING CONDITION OF SITE AREA DISTURBED (SQUARE FEET)	PROPOSED CONDITION OF SITE AREA DISTURBED (SQUARE FEET)	TOTAL AREA OF SITE DISTURBED (SQUARE FEET)
2.66	2.66	2.66	2.66
IMPERVIOUS SURFACES			
ROOF AREAS	19,795	19,795	20,541
PARKING	19,710	19,710	—
SIDEWALKS, PATIOS, PATHS, ETC	2,063	2,063	5,407
STREETS (PUBLIC)	—	—	—
STREETS (PRIVATE)	—	41,568	8,829
TOTAL IMPERVIOUS SURFACES	41,568	21,858	34,777
PERVIOUS SURFACES			
LANDSCAPED AREAS	9,210	9,210	30,111
PERVIOUS PAVERS	—	—	—
OTHER PERVIOUS SURFACES (GREEN ROOF, ETC)	64,870	—	—
TOTAL PERVIOUS SURFACES	74,080	9,210	30,111
TOTAL PROPOSED REPLACED + NEW IMPERVIOUS SURFACES		76,345	
TOTAL PROPOSED REPLACED + NEW PERVIOUS SURFACES		39,321	

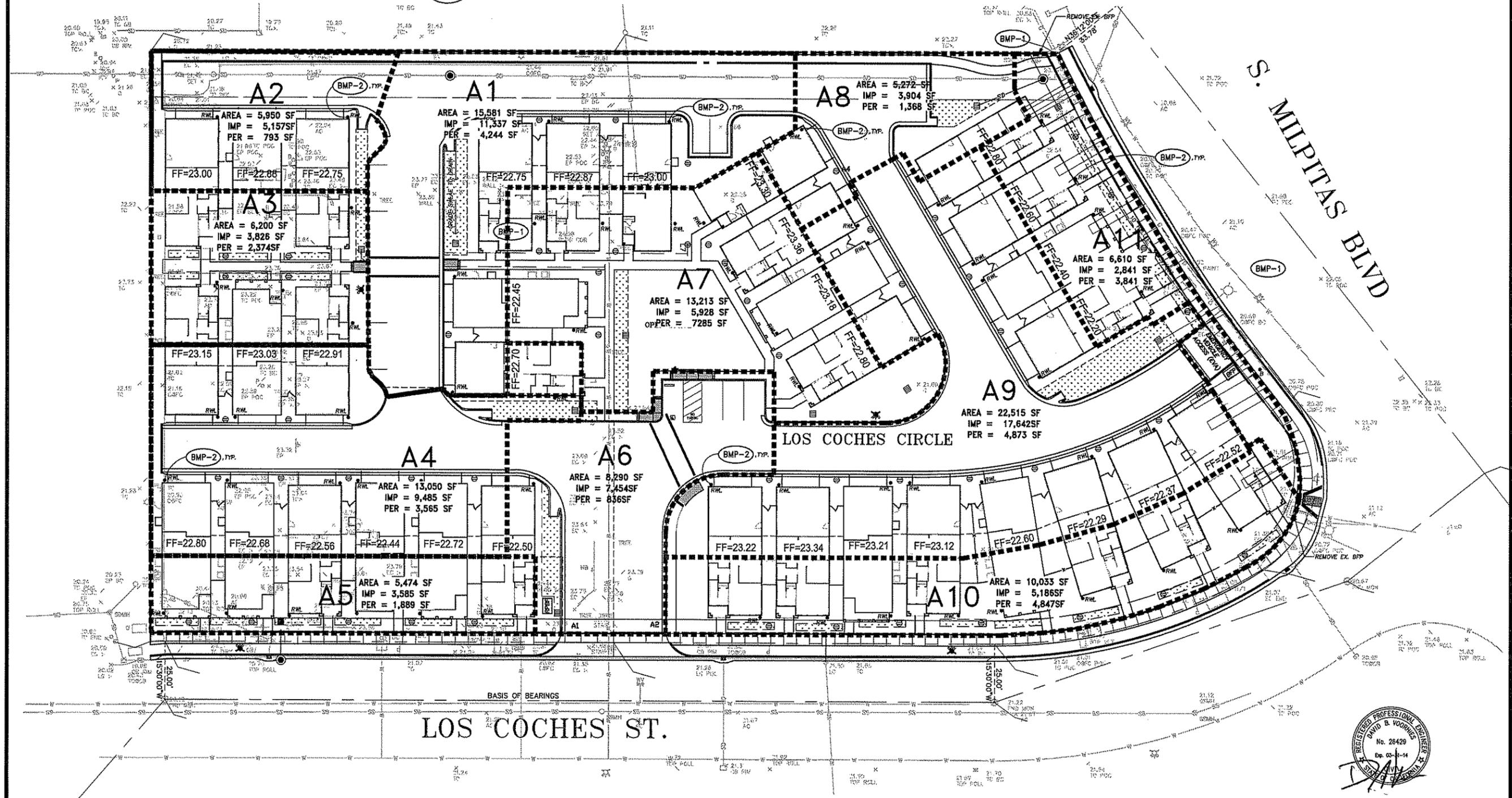
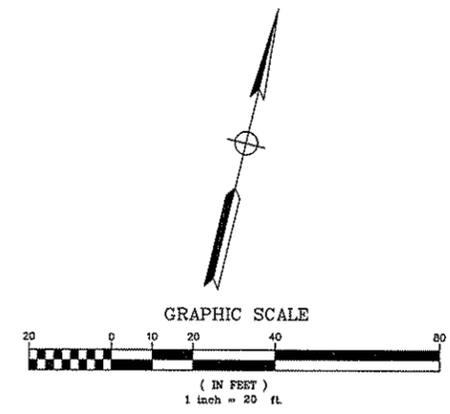
AREA CALCULATION							TREATMENT AREA	
ID AREA	LANDSCAPE AREA (SF)	ROOF AREA (SF) (IMP)	IMPERVIOUS SIDEWALK/WALKWAY AREA (SF)	IMPERVIOUS PRIVATE STREET AREA (SF)	TOTAL IMPERVIOUS AREA (SF)	SUBSTANTIATION AREA (SF)	TYPE (BMP)	IMP (SF)
A1	4244	3298	131	7908	11,337	434 SF	1	435
A2	790	2157	648	2352	5,157	206 SF	1	200
A3	2374	3,470	356	0	3,828	153 SF	1	158
A4	3,565	5,5,238	612	3,635	9,485	380 SF	1	380
A5	1,889	3,240	345	0	3,585	144 SF	1	360
A6	636	355	124	6,975	7,454	298 SF	1	342
A7	7,285	4,966	968	0	5,928	237 SF	1	280
A8	1,368	1,266	345	2,293	3,904	156 SF	1	222
A9	5,073	10,729	0	6,713	17,442	698 SF	1	747
A10	4,847	4,512	674	0	5,186	208 SF	1	240
A11	3,769	2,068	773	0	2,841	114 SF	1	323
TOTAL AREA	35,843	41,299	4,970	30,076	76,345	3,154		1,700

ABBREVIATION

IMP IMPERVIOUS
 PER PAV PERVIOUS PAVEMENT
 PER LS PERVIOUS LANDSCAPING
 SF SQUARE FEET

(BMP-1) VOLUME BASED BIORETENTION AREA

(BMP-2) ROOF LEADERS SPLASH TO LANDSCAPE TYPICAL



DATE	1	1	1
REVISIONS			
DESIGNER			
DRAWN			
CHECKED			
DATE	1	1	1

UNDERWOOD & ROSENBLUM, INC.
 civil engineers and surveyors
 1300 Los Coches St., Milpitas, CA 95035
 Tel: (408) 433-1222 Fax: (408) 433-1227

U&R

375 LOS COCHES STREET
 CASTLE COMPANY
 MILPITAS CALIFORNIA

GRADING & STORM CONTROL PLAN
 TENTATIVE MAP

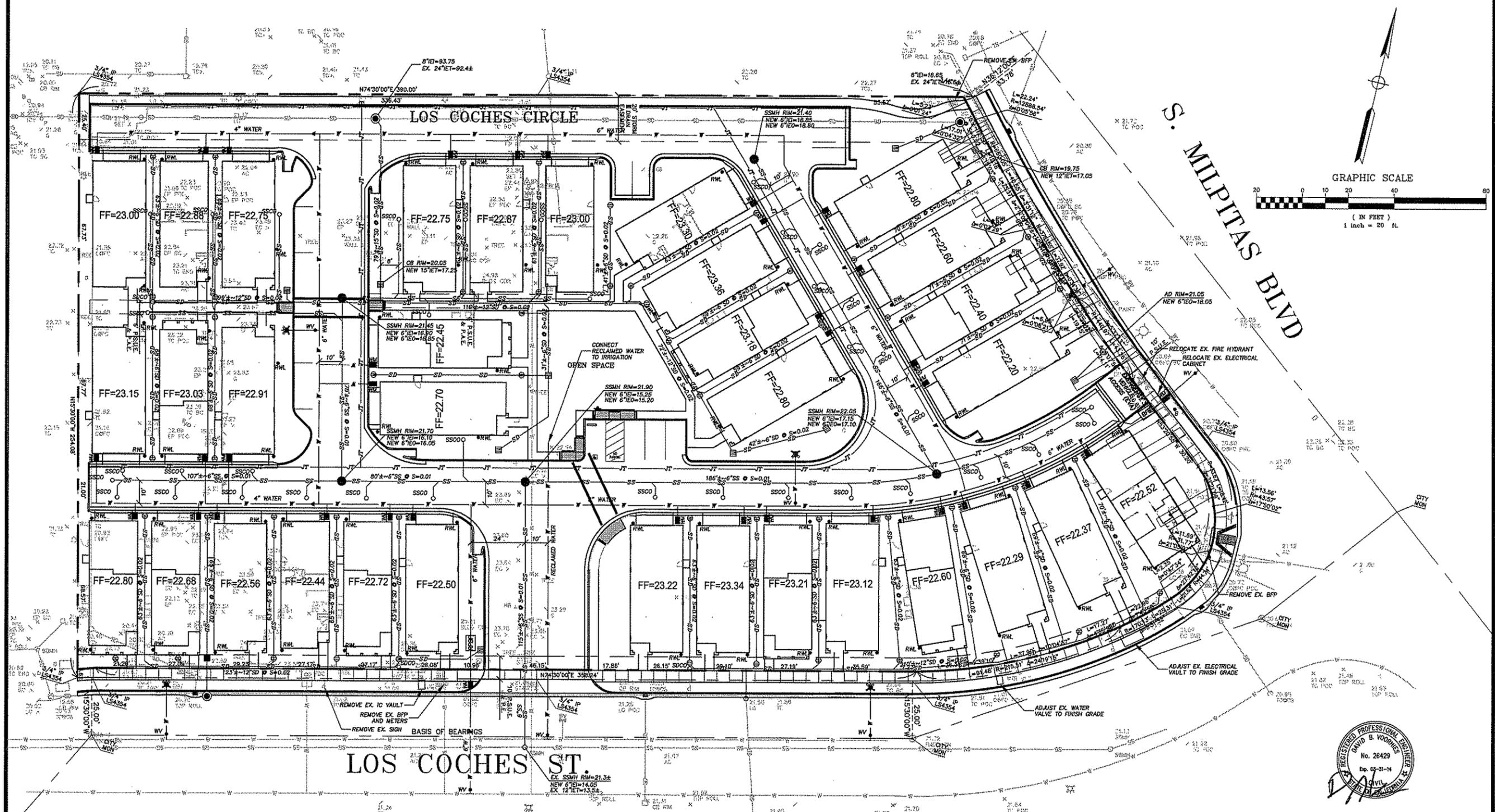
Date 9-27-2012
 Scale 1"=20'
 Design By: DV
 Job J11076
 Sheet
 T2.1



UTILITY LEGEND

— PER —	NEW PERFORATE DRAIN @ 1% SLOPE
— SD —	NEW STORM DRAIN @ 1% SLOPE
— SS —	NEW SANITARY SEWER (SIZE AS INDICATED) S=0.01 UNLESS OTHERWISE INDICATED
— W —	NEW WATER LINE (SIZE AS INDICATED)
— JT —	JOINT TRENCH
⊗ FH	FIRE HYDRANT
⊗ BFP	BACKFLOW PREVENTER
RWL ●	RAIN WATER LEADER
▲	REDUCER
WM	WATER METER
INV	INVERT ELEVATION
IE	INVERT ELEVATION IN
IEO	INVERT ELEVATION OUT
JET	INVERT ELEVATION THROUGH

- NOTE:**
- ALL UTILITIES WITHIN THE SUBDIVISION ARE PRIVATELY OWNED AND MAINTAINED BY HOA.
 - STREET LIGHTS WITHIN THE SUBDIVISION ARE PRIVATELY OWNED AND MAINTAINED BY HOA.
 - WELLS: NONE.
 - STREET TREES: INSTALLED PER CITY STANDARD NO. 448, MAINTAINED BY THE HOA.
 - STREETS: ALL STREETS WITHIN THE SUBDIVISION WILL BE PRIVATE STREETS AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION. ALL STREETS WILL BE IN PSUE'S (MIN. LONGITUDINAL SLOPE =0.6%)
 - SOUNDWALLS AND MASONARY WALLS: ALL WALLS WILL BE PRIVATE FACILITIES AND MAINTAINED BY THE HOMEOWNERS/HOMEOWNER ASSOCIATION.
 - FLOOD ZONE: ZONE AH - SHALLOW FLOODING, 1-3FT, USUALLY AS PONDING AREAS.
 - LANDSCAPING ALONG LOS COCHES STREET FRONTAGE TO MAINTAINED BY HOA, VIA AN ENCROACHMENT PERMIT AGREEMENT.



DATE									
REVISIONS									
DESC.									

UNDERWOOD & ROSENBLUM, INC.
 Civil Engineers and Surveyors
 1000 California Street, Suite 1000
 Milpitas, CA 95035
 Tel: (408) 437-1222 Fax: (408) 437-1227

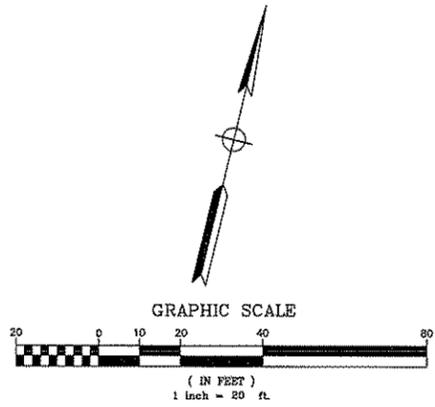
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375 LOS COCHES STREET
 CASTLE COMPANY
 MILPITAS CALIFORNIA

UTILITY PLAN
 TENTATIVE MAP

Date 12-05-2012
 Scale 1"=20'
 Design By: DV
 Job J11076
 Sheet

T3

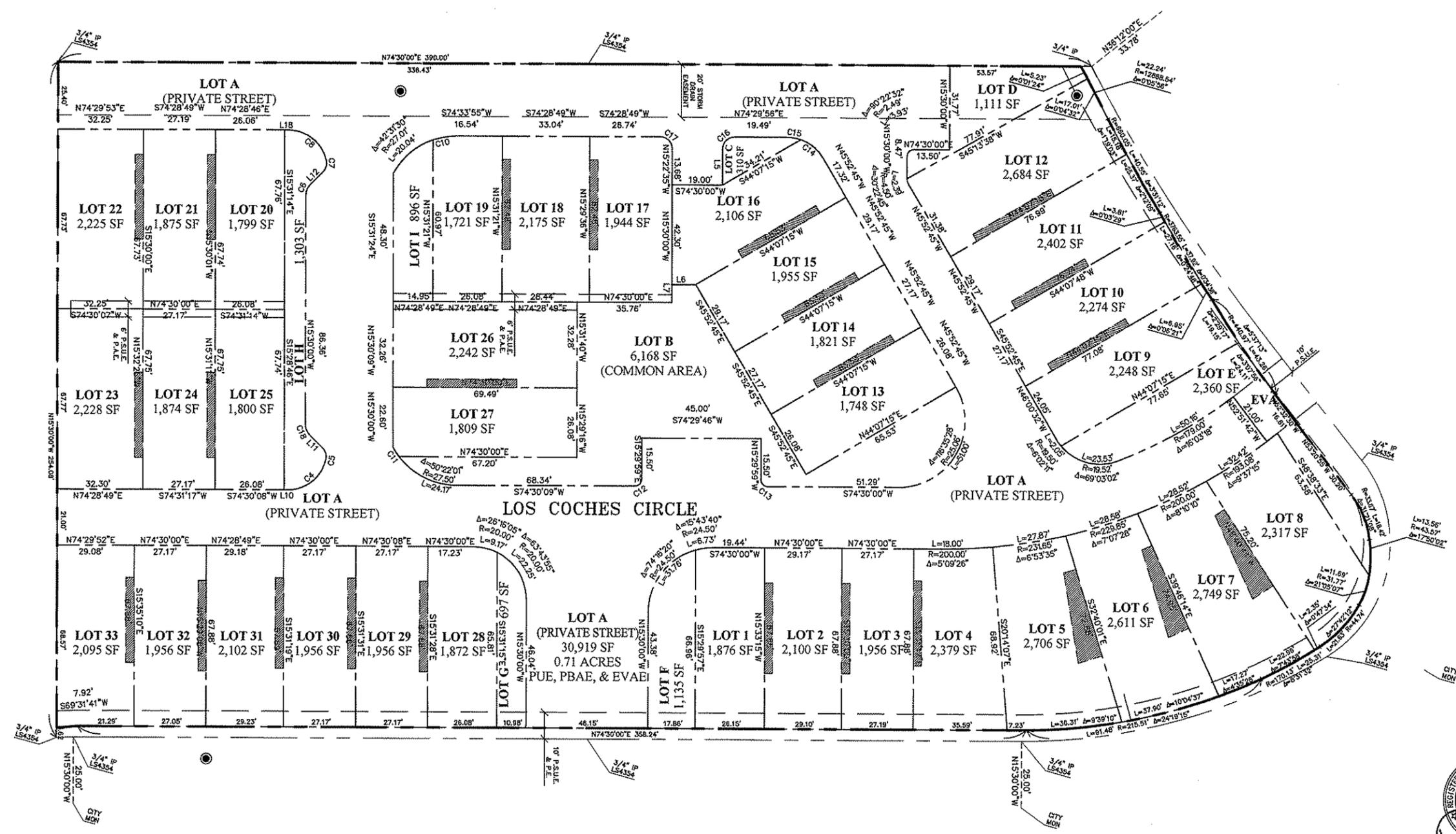


LINE TABLE		
LINE	LENGTH	DIRECTION
L5	13.66'	N15°30'00"W
L6	9.00'	N74°30'00"E
L7	4.73'	N15°30'00"W
L11	6.92'	N60°30'00"W
L12	6.92'	N29°30'00"E
L18	1.50'	S74°28'49"W

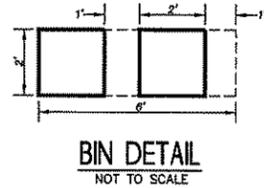
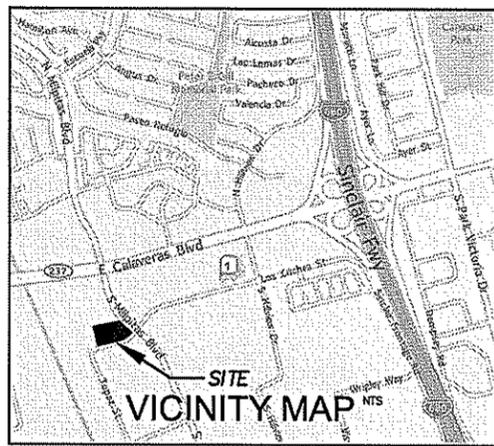
CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C4	20.02'	14.50'	79°06'05"
C5	20.02'	14.50'	79°06'05"
C6	4.32'	5.50'	45°00'00"
C7	4.39'	4.50'	55°53'55"
C8	20.02'	14.50'	79°06'05"
C10	9.71'	30.34'	18°19'51"
C11	4.18'	27.50'	8°42'26"
C12	3.93'	2.50'	90°00'00"
C13	3.93'	2.50'	90°00'01"
C14	10.82'	15.49'	40°23'48"
C15	5.62'	15.56'	20°41'00"
C16	7.07'	4.50'	90°00'00"
C17	7.07'	4.50'	90°00'00"
C18	4.32'	5.50'	45°00'00"

LEGEND:

- 3/4" IRON PIPE SET, TAGGED "LS 6395"
- 3/4" IRON PIPE FOUND AS NOTED
- DISTINCTIVE EXTERIOR BORDER LINE
- PROPERTY LINE ESTABLISHED BY THIS MAP
- CENTERLINE
- EASEMENT LINE
- SIDYARD EASEMENT LINE ESTABLISHED BY THIS MAP
- P.A.E. PEDESTRIAN ACCESS EASEMENT
- P.E. PLANTING EASEMENT
- P.I.E.E. PRIVATE INGRESS AND EGRESS EASEMENT
- P.S.D.E. PRIVATE STORM DRAIN EASEMENT
- P.S.E. PUBLIC SERVICE EASEMENT
- P.R.S.E. PRIVATE SERVICE EASEMENT
- P.S.S.E. PRIVATE SANITARY SEWER EASEMENT
- P.S.U.E. PRIVATE SERVICE AND UTILITY EASEMENT
- (R) RADIAL
- S.F. SQUARE FEET



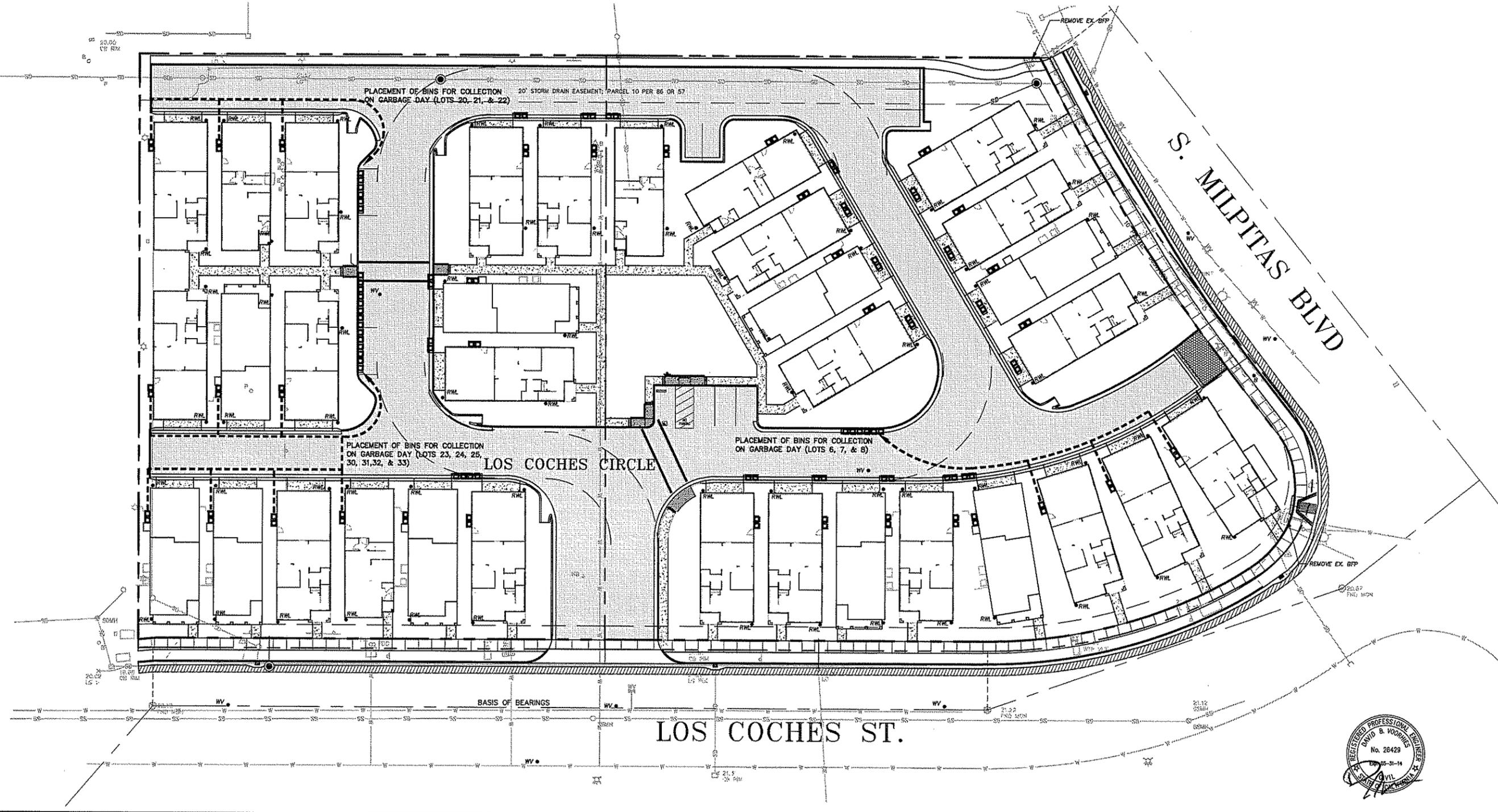
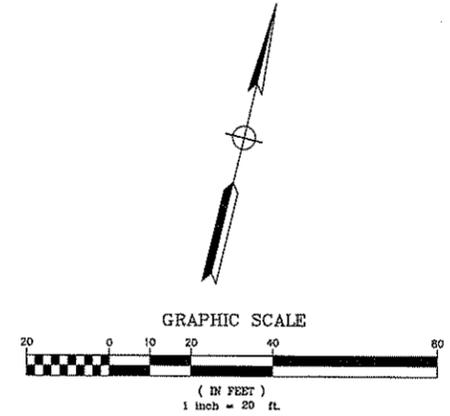
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REVISIONS									
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UNDERWOOD & ROSENBLUM, INC. civil engineers and surveyors 375 LOS COCHES STREET CASTILE COMPANY MILPITAS CALIFORNIA									
PROPOSED TRACT MAP TENTATIVE MAP									
Date 12-05-2012 Scale 1"=20' Design By: DV Job J11076 Sheet									
T4									



LEGEND

- SYMBOL REPRESENTS AREA (6' X 2') REQUIRED FOR COLLECTION OF GARBAGE & RECYCLING (SEE DETAIL THIS SHEET)
- SYMBOL MATCHES LOCATION OF TRASH BIN STORAGE TO TRASH BIN COLLECTION (SEE TYPICAL NOTES)

NOTE:
NO ON STREET PARKING ON GARBAGE DAYS IN SELECTED STALLS, TO BE COORDINATED BY HOA. BIN REPLACEMENT TO BE COORDINATED BY HOA.

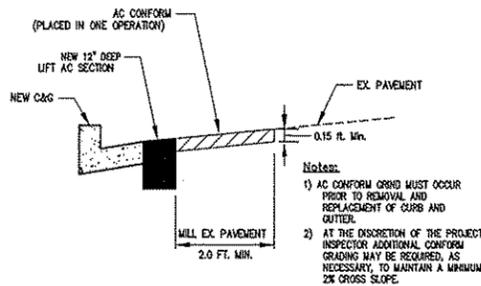


REVISIONS	DATE

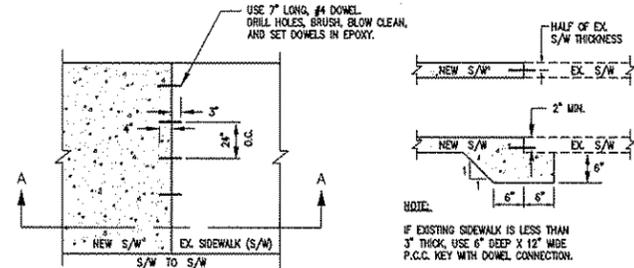
UNDERWOOD & ROSENBLUM, INC.
Civil Engineers and Surveyors
P.O. Box 1099, Milpitas, CA 95031
Tel: (408) 257-1227 Fax: (408) 257-1227

375 LOS COCHES STREET
CASTLE COMPANY
MILPITAS CALIFORNIA

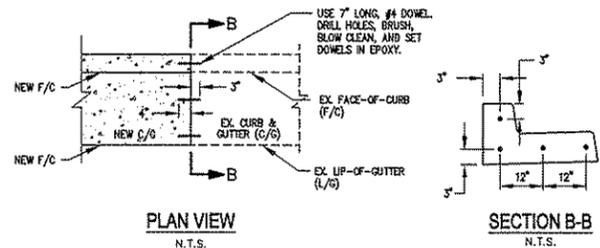
TRASH COLLECTION
EXHIBIT



CONSTRUCTION JOINT DETAIL 1
N.T.S.

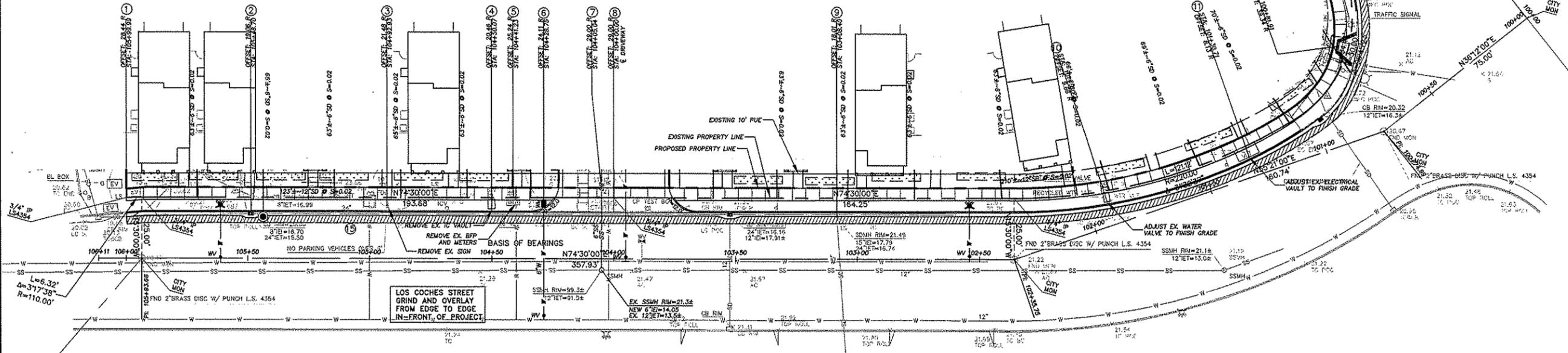
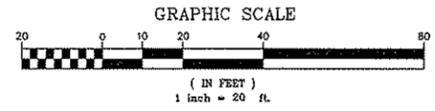
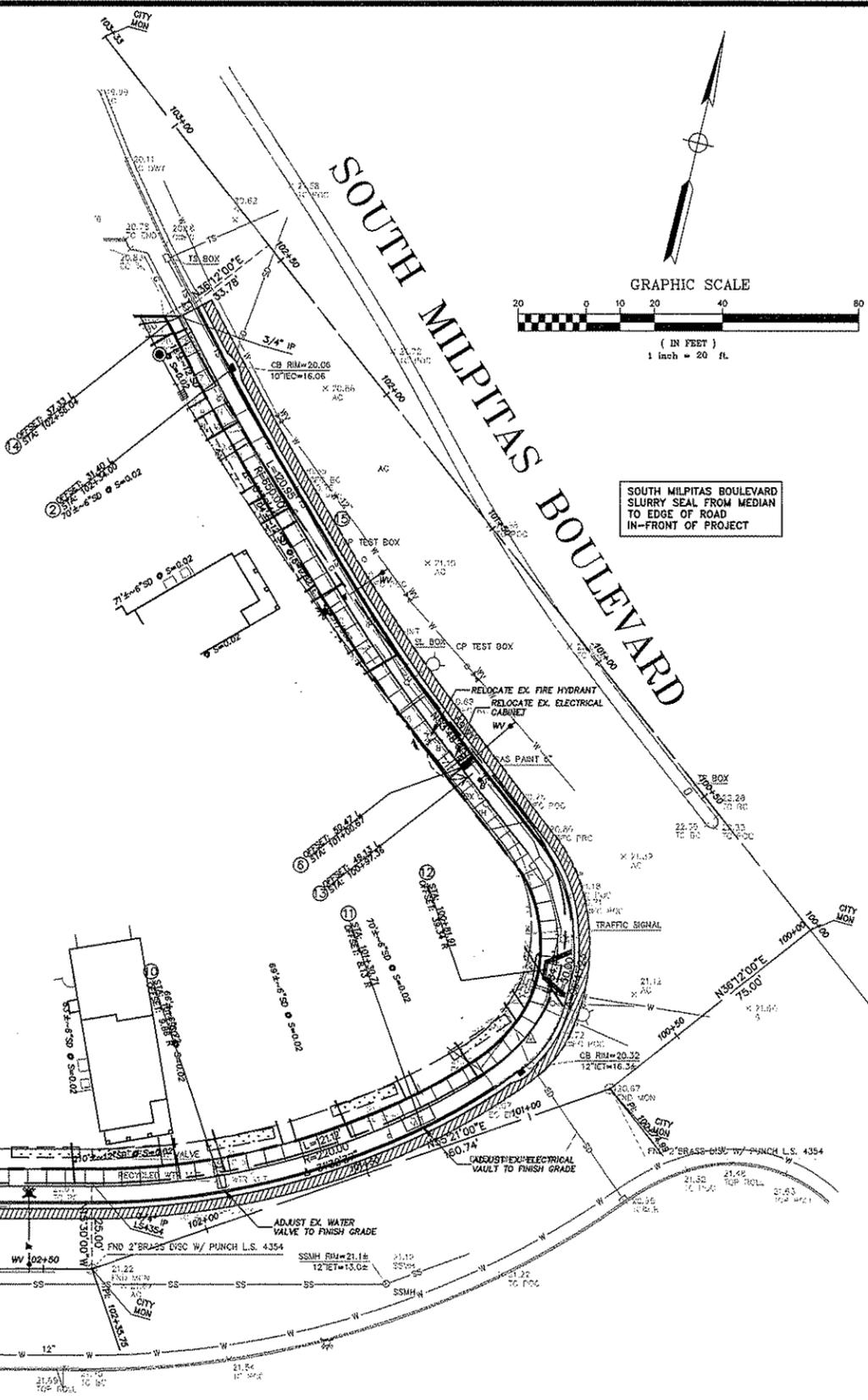


DOWEL CONNECTIONS DETAIL 2
N.T.S.



DOWEL CONNECTIONS DETAIL 2
N.T.S.

- PLAN KEYNOTES**
- 1 END OF SIDEWALK
 - 2 CONNECT NEW STORMDRAIN LINE TO EXISTING CB
 - 3 REMOVE EXISTING SIGN
 - 4 REMOVE EXISTING IC VAULT
 - 5 REMOVE EXISTING BFP & METERS
 - 6 INSTALL NEW 1/2\"/>
 - 7 CONNECT NEW 6\"/>
 - 8 CONSTRUCT 45 LF DRIVEWAY (PER CITY STD. DETAIL 434)
 - 9 CONNECT NEW STORMDRAIN LINE TO EXISTING CATCH BASIN
 - 10 ADJUST EXISTING WATER VAULT TO FINISH GRADE
 - 11 ADJUST EXISTING ELECTRICAL VAULT TO FINISH GRADE
 - 12 CONSTRUCT NEW ADA RAMP (PER CITY STD. DETAIL 419)
 - 13 RELOCATE EXISTING FIRE HYDRANT AND SOLLARD TO NEW LOCATION
 - 14 CONNECT NEW SIDEWALK TO OLD (SEE DETAIL 2/OS-1)
 - 15 CONSTRUCTION JOINT (SEE DETAIL 1/OS-1)



LOS COCHES STREET



NO.	DATE	REVISIONS

UNDERWOOD & ROSENBLUM, INC.
civil engineers and surveyors
1540 California Road, Suite 200, Milpitas, CA 95035
Tel. No. (408) 933-1222 Fax No. (408) 933-1287

LOS COCHES CASTLE COMPANY
MILPITAS CALIFORNIA

OFF-SITE STREET IMPROVEMENT PLAN

Date 8-27-2012
Scale 1"=20'
Design By: DV
Job J11076
Sheet
05-1



Tuscan

Tuscan Elevation

- Roof: Concrete Tile
- Fascia: Gutter w/ 2x6 Wood
- Walls: 3-Coat Stucco
- Trim: Stucco w/ Foam
- Accents: Pot Shelf w/ Corbels
Metal Deck Railing
Stone Veneer



Traditional

Traditional Elevation

- Roof: Composition Shingle
- Fascia: Gutter w/ 2x6 Wood
- Barge: 2x6 Wood
- Walls: 3-Coat Stucco
- Trim: Stucco w/ Foam
- Accents: Siding
Outlookers
Wood Deck Railing



Craftsman

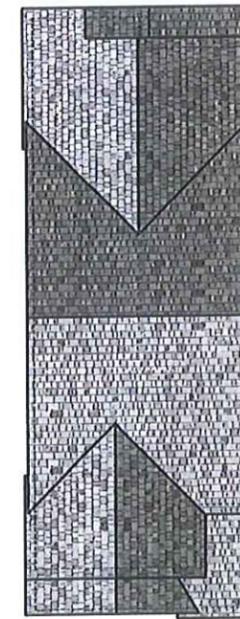
Craftsman Elevation

- Roof: Composition Shingle
- Fascia: Gutter w/ 2x6 Wood
- Barge: 2x6 Wood
- Walls: 3-Coat Stucco
- Trim: Stucco w/ Foam
- Accents: Gable End Siding
Outlookers & Knee Braces
Wood Deck Railing
Stone Veneer

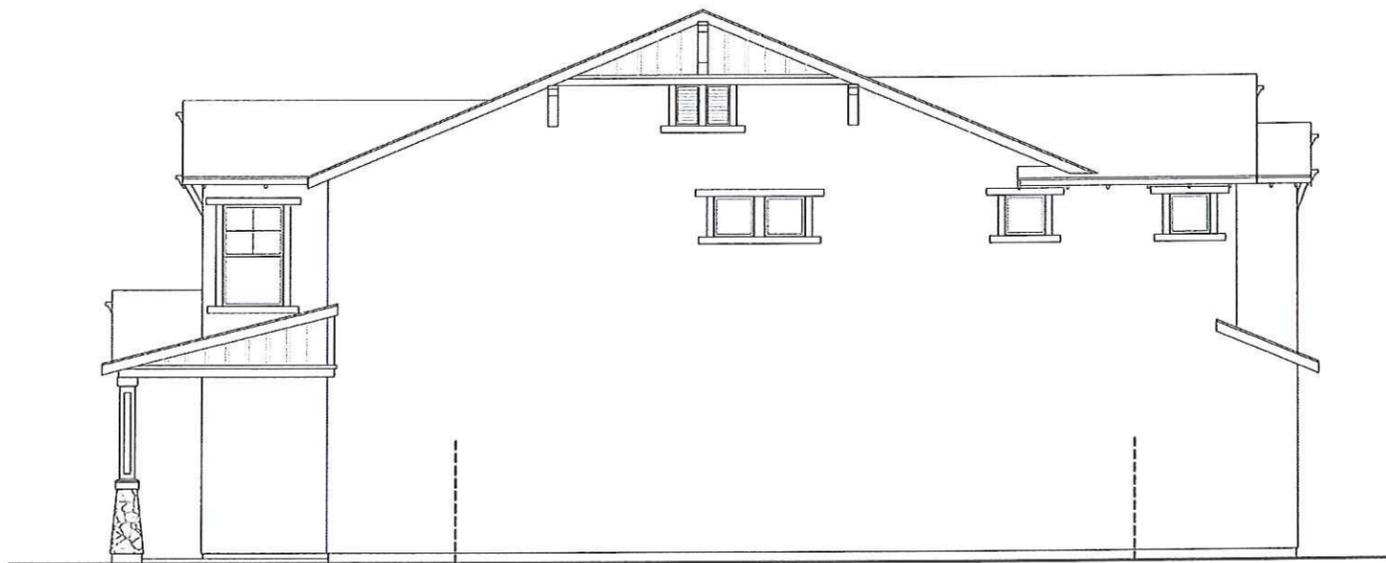
Plan One
Front Elevations



Left Side



Roof Plan



Right Side (Interior Lot)



Rear

Plan One
Craftsman Elevations

Note: 'Left' & 'Right' Titles on these elevations pertain to the standard plan with the front entry door located on the right side of the plan as indicated on these drawings. These Titles may be opposite to conditions shown on the Site Plan due to reverse plotting of the units.

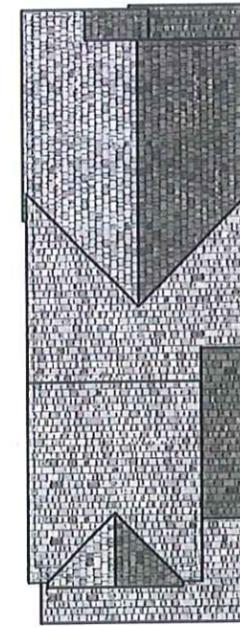
0 2 4 8
SCALE: 1/4" = 1'-0"
November 9, 2012

MILPITAS SFD
Milpitas, California
Castle Companies

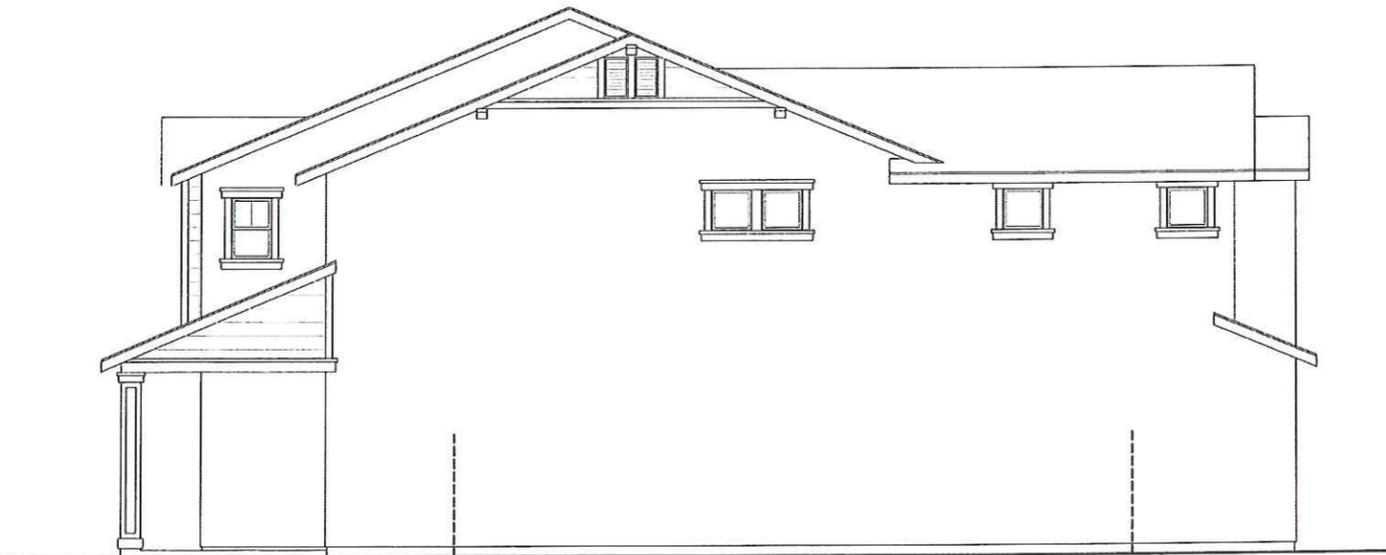
D1.3



Left Side
This Elevation occurs on the 'Public View Side' of Lots 17 & 33



Roof Plan



Right Side (Interior Lot)



Rear

Plan One
Traditional Elevations

Note: 'Left' & 'Right' Titles on these elevations pertain to the standard plan with the front entry door located on the right side of the plan as indicated on these drawings. These Titles may be opposite to conditions shown on the Site Plan due to reverse plotting of the units.

0 2 4 8
SCALE: 1/4" = 1'-0"
November 9, 2012

MILPITAS SFD
Milpitas, California
Castle Companies

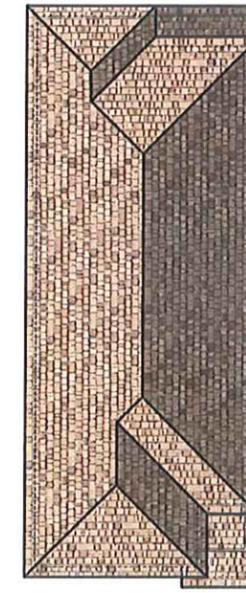
D1.4



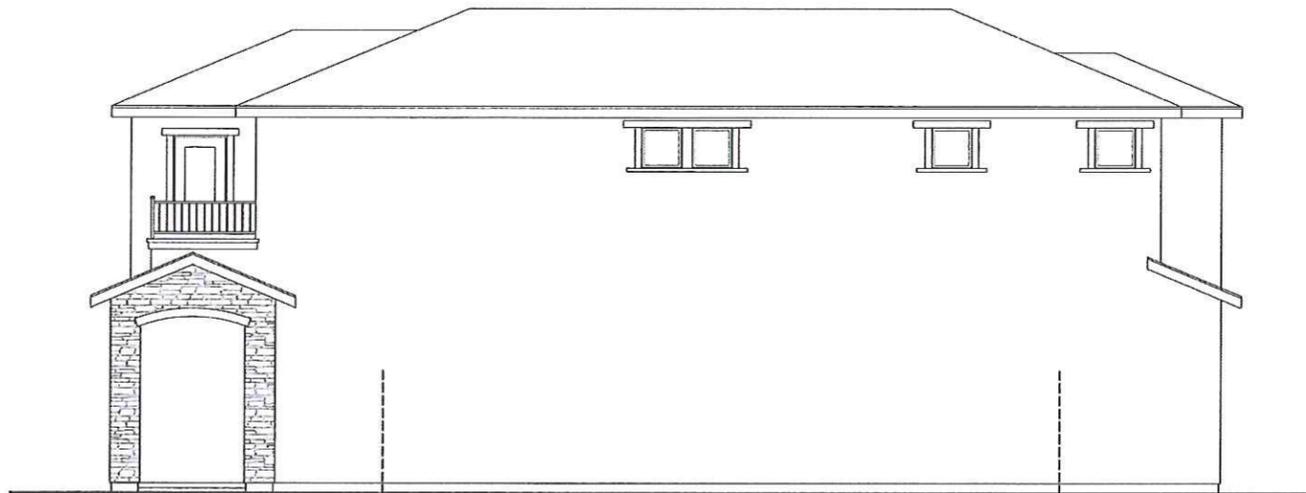
6' HIGH PRIVACY FENCE @ LOT 16

Left Side

This Elevation occurs on the 'Public View Side' of Lot 16



Roof Plan



Right Side (Interior Lot)



Rear

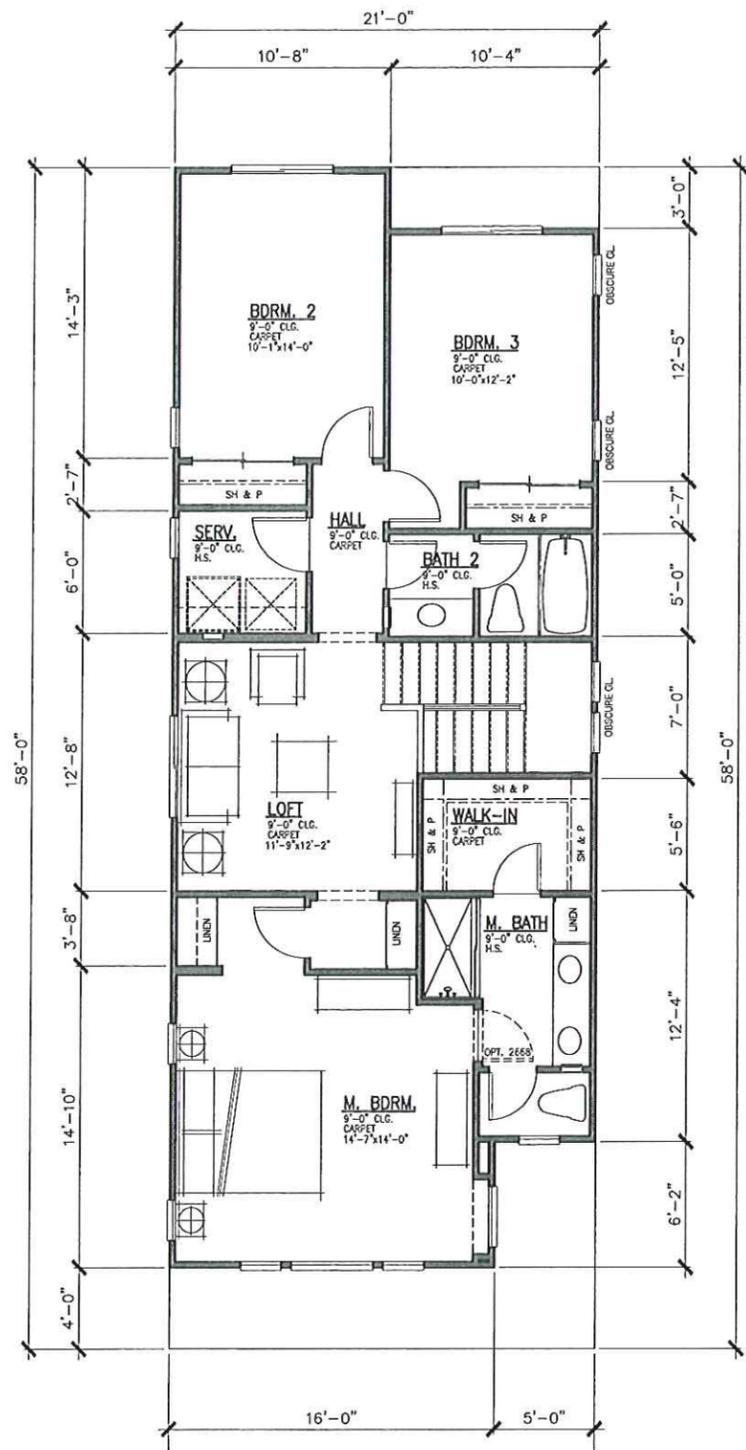
Plan One
Tuscan Elevations

Note: 'Left' & 'Right' Titles on these elevations pertain to the standard plan with the front entry door located on the right side of the plan as indicated on these drawings. These Titles may be opposite to conditions shown on the Site Plan due to reverse plotting of the units.

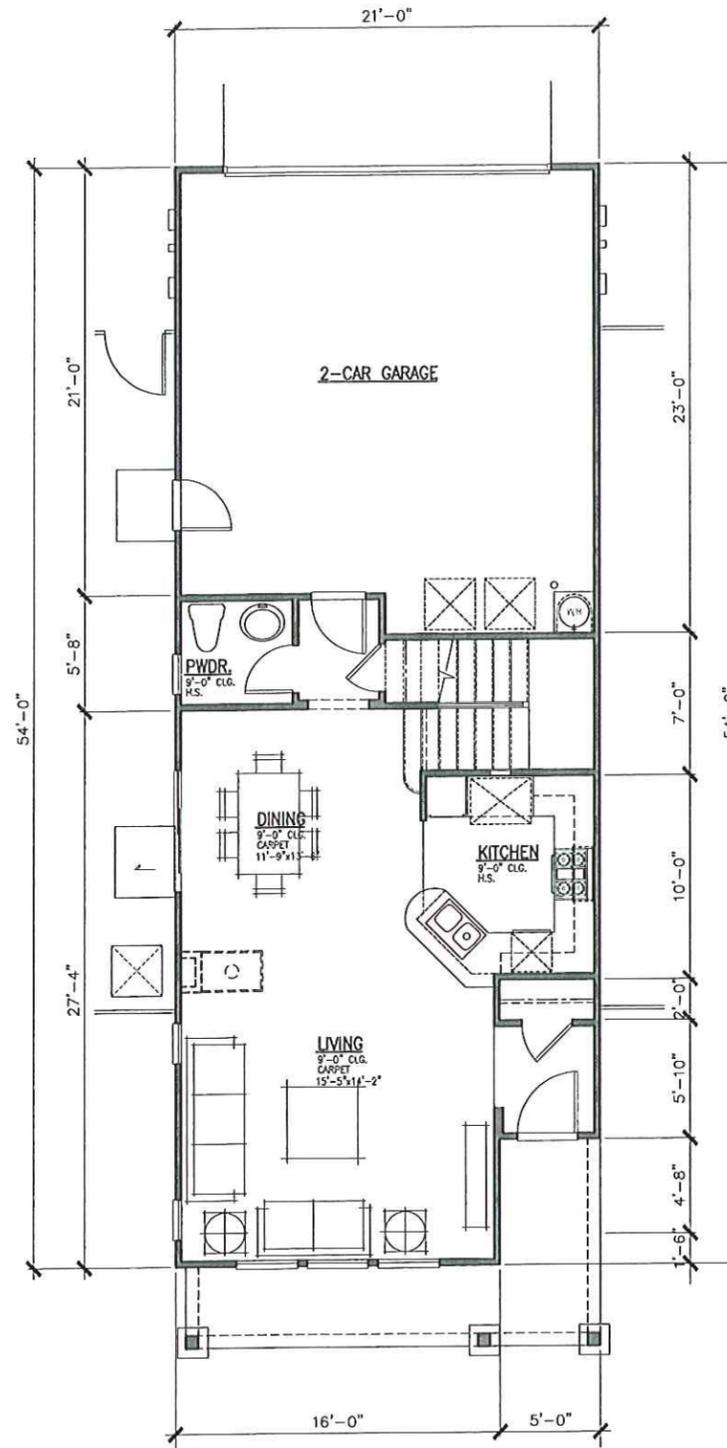
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SCALE: 1/4" = 1'-0"
November 9, 2012

MILPITAS SFD
Milpitas, California
Castle Companies

D1.5



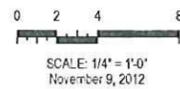
UPPER LEVEL PLAN



LOWER LEVEL PLAN

Plan One
 1652 Square Feet
 3 Bedroom & Loft w/ 2 1/2 Baths
 2-Car Garage

(The Craftsman Elevation is shown in plan here, other Elevation Styles may vary in fenestration)



MILPITAS SFD
 Milpitas, California
 Castle Companies

D1.1



English

English Elevation

- Roof: Composition Shingle
- Fascia: Gutter o/ 2x6 Wood
- Walls: 3-Coat Stucco
- Trim: Stucco o/ Foam
- Accents: Bay Window
Metal Deck Railing
Pot Shelf w/ Corbels

Tuscan Elevation

- Roof: Concrete Tile
- Fascia: Gutter o/ 2x6 Wood
- Walls: 3-Coat Stucco
- Trim: Stucco o/ Foam
- Accents: Pot Shelf w/ Corbels
Metal Deck Railing
Stone Veneer



Tuscan



Traditional

Traditional Elevation

- Roof: Composition Shingle
- Fascia: Gutter o/ 2x6 Wood
- Barge: 2x6 Wood
- Walls: 3-Coat Stucco
- Trim: Stucco o/ Foam
- Accents: Siding
Outlookers
Wood Deck Railing
Brick Veneer

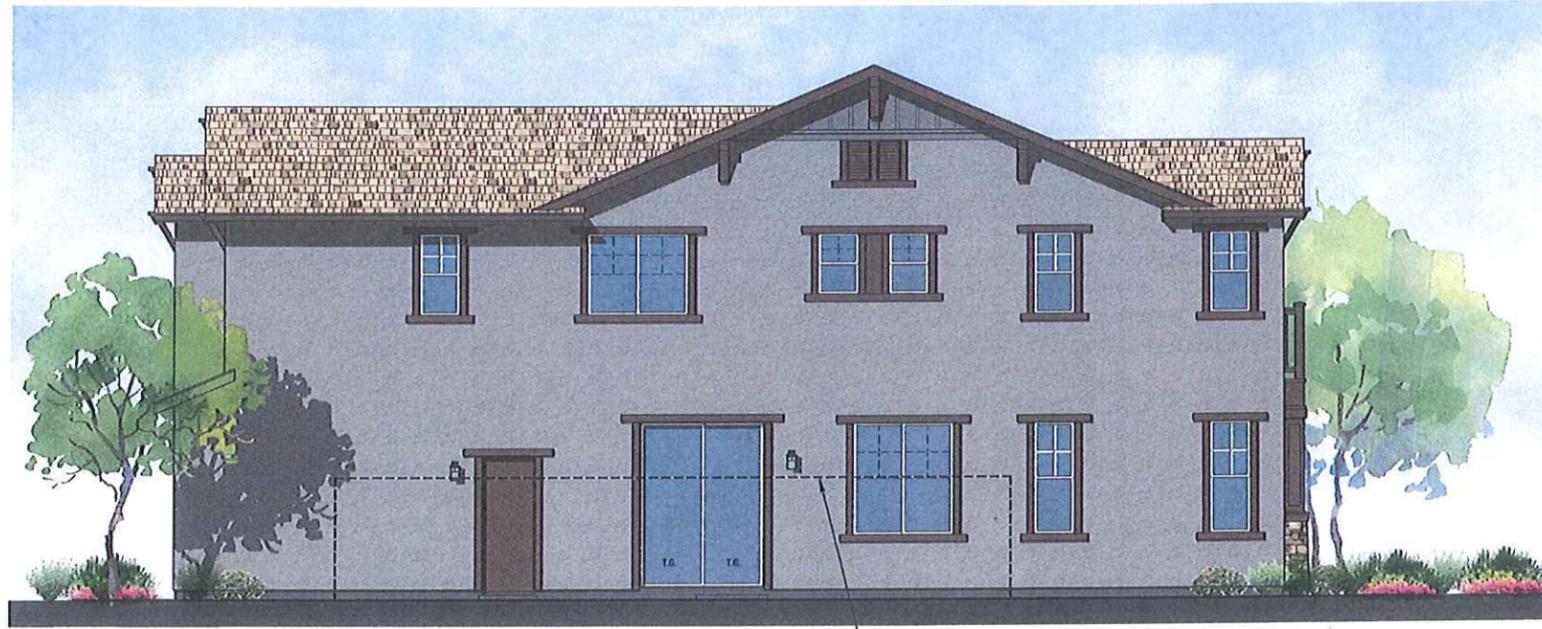
Craftsman Elevation

- Roof: Composition Shingle
- Fascia: Gutter o/ 2x6 Wood
- Barge: 2x6 Wood
- Walls: 3-Coat Stucco
- Trim: Stucco o/ Foam
- Accents: Gable End Siding
Outlookers & Knee Braces
Wood Deck Railing
Stone Veneer



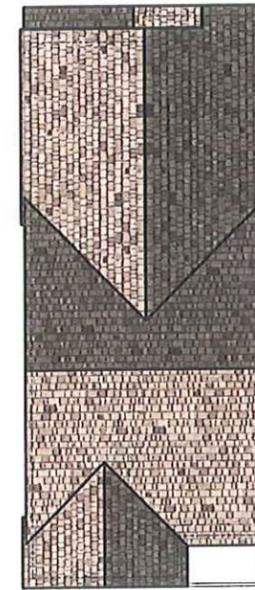
Craftsman

Plan Two
Front Elevations

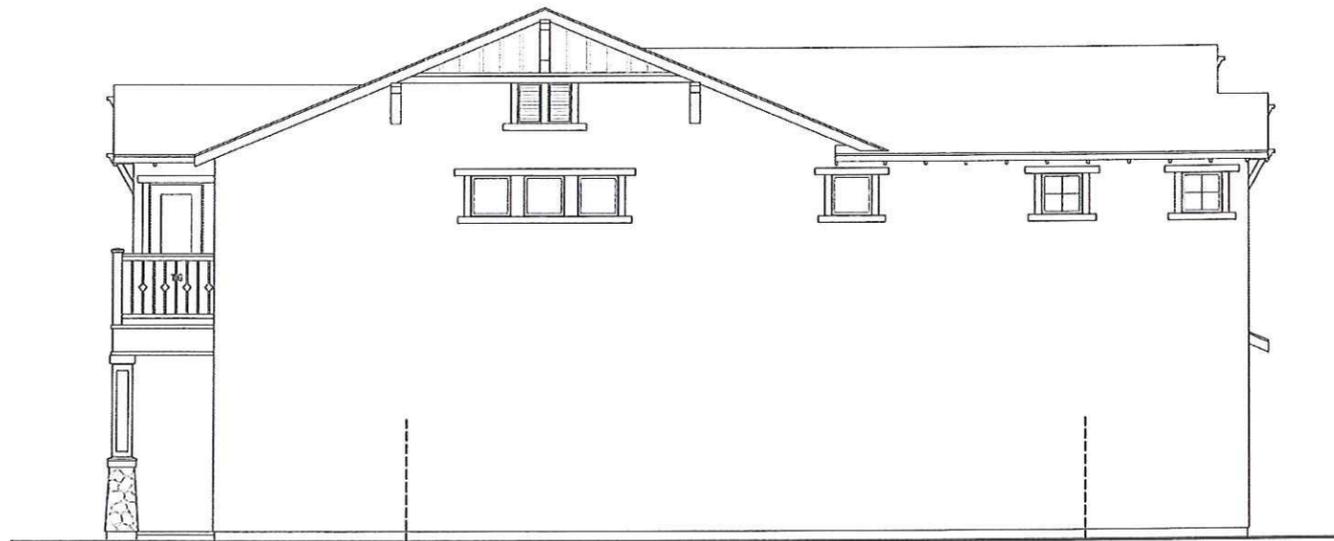


Left Side

This Elevation occurs on the 'Public View Side' of Lot 22



Roof Plan



Right Side (Interior Lot)

See Sheet D2.7 for Enhanced Elevation when occurs on the 'Public View Side' of a Lot



Rear

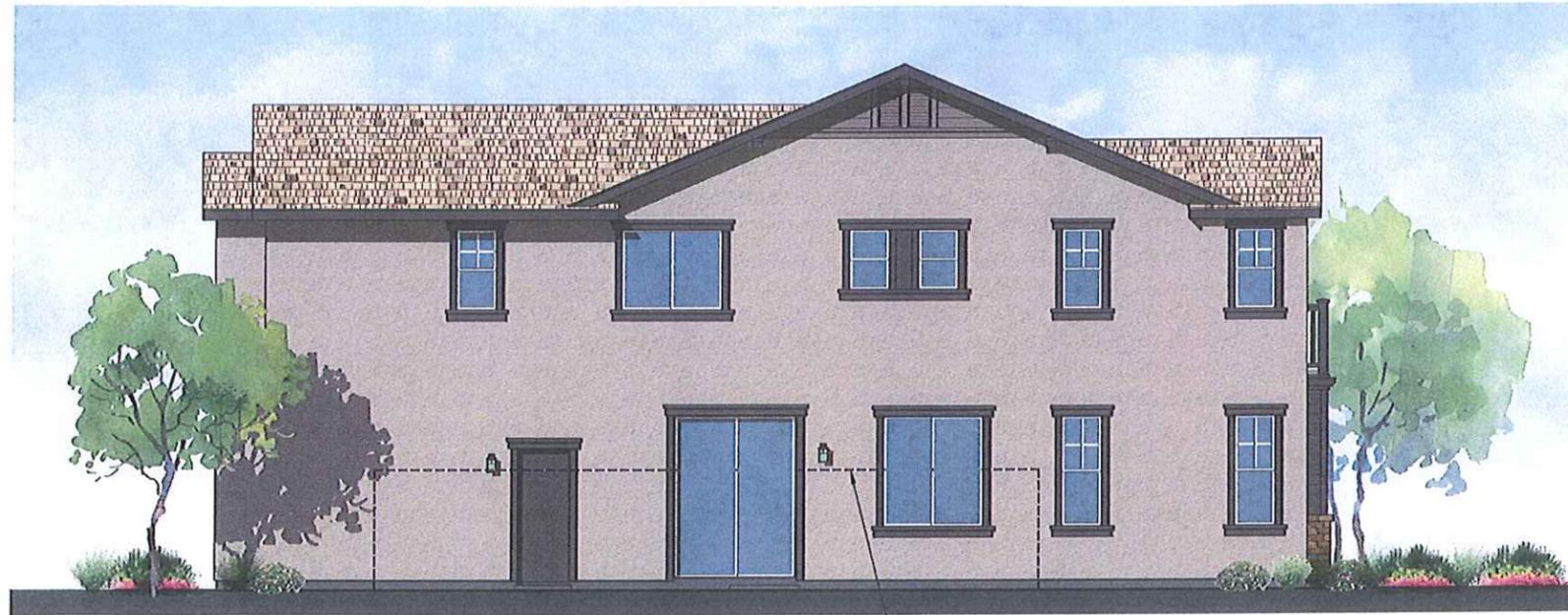
Note: 'Left' & 'Right' Titles on these elevations pertain to the standard plan with the front entry door located on the right side of the plan as indicated on these drawings. These Titles may be opposite to conditions shown on the Site Plan due to reverse plotting of the units.

Plan Two
Craftsman Elevations

0 2 4 8
SCALE: 1/4" = 1'-0"
November 9, 2012

MILPITAS SFD
Milpitas, California
Castle Companies

D2.3



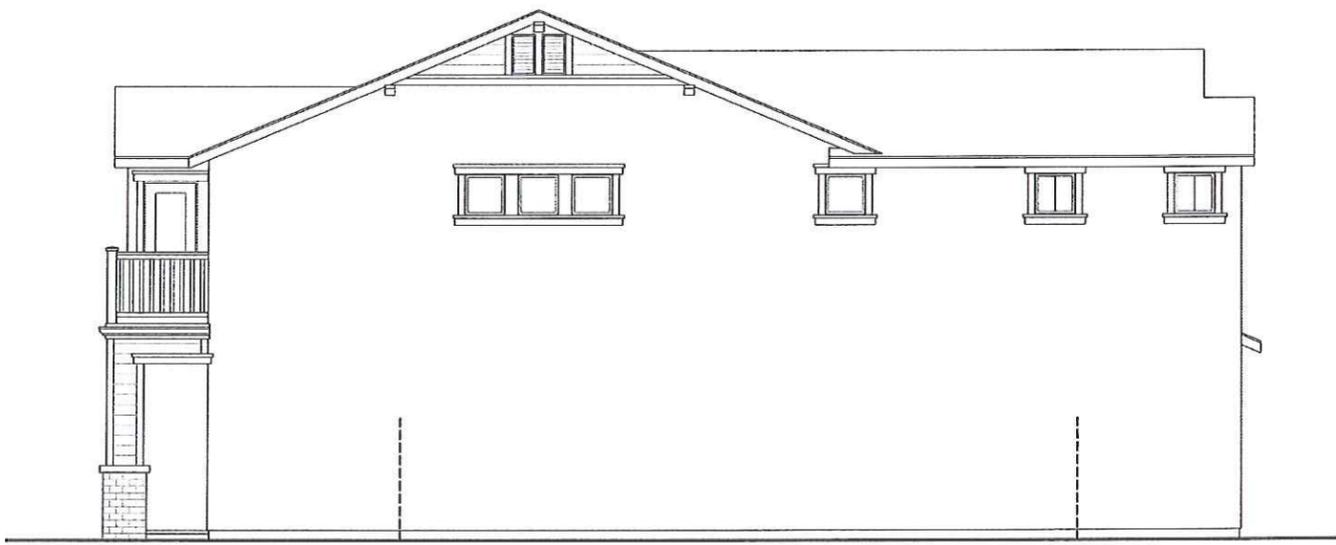
6' HIGH PRIVACY FENCE @ LOT 26

Left Side

This Elevation occurs on the 'Public View Side' of Lot 26



Roof Plan



Right Side (Interior Lot)

See Sheet D2.7 for Enhanced Elevation when occurs on the 'Public View Side' of a Lot



Rear

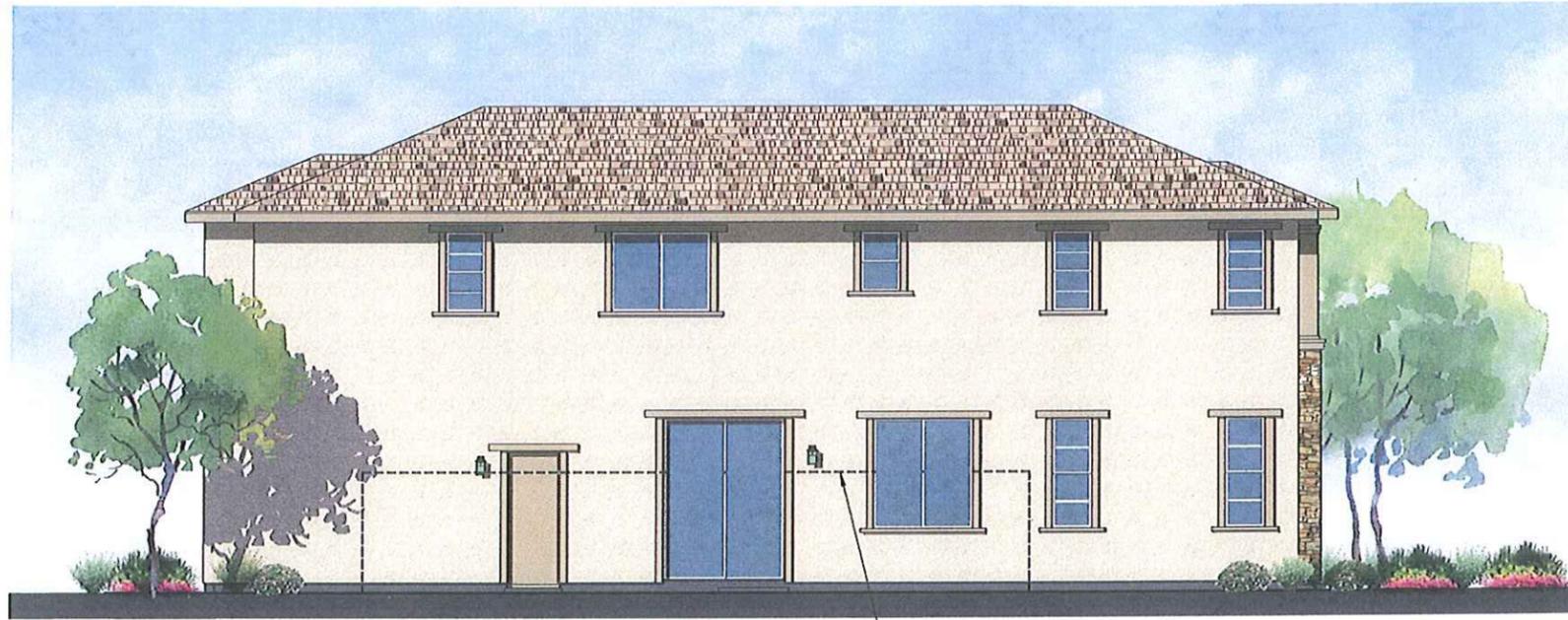
Note: 'Left' & 'Right' Titles on these elevations pertain to the standard plan with the front entry door located on the right side of the plan as indicated on these drawings. These Titles may be opposite to conditions shown on the Site Plan due to reverse plotting of the units.

Plan Two
Traditional Elevations

0 2 4 8
SCALE: 1/4" = 1'-0"
November 9, 2012

MILPITAS SFD
Milpitas, California
Castle Companies

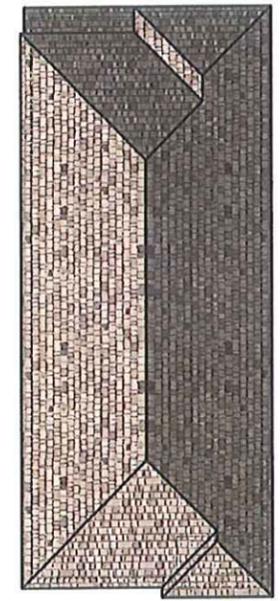
D2.4



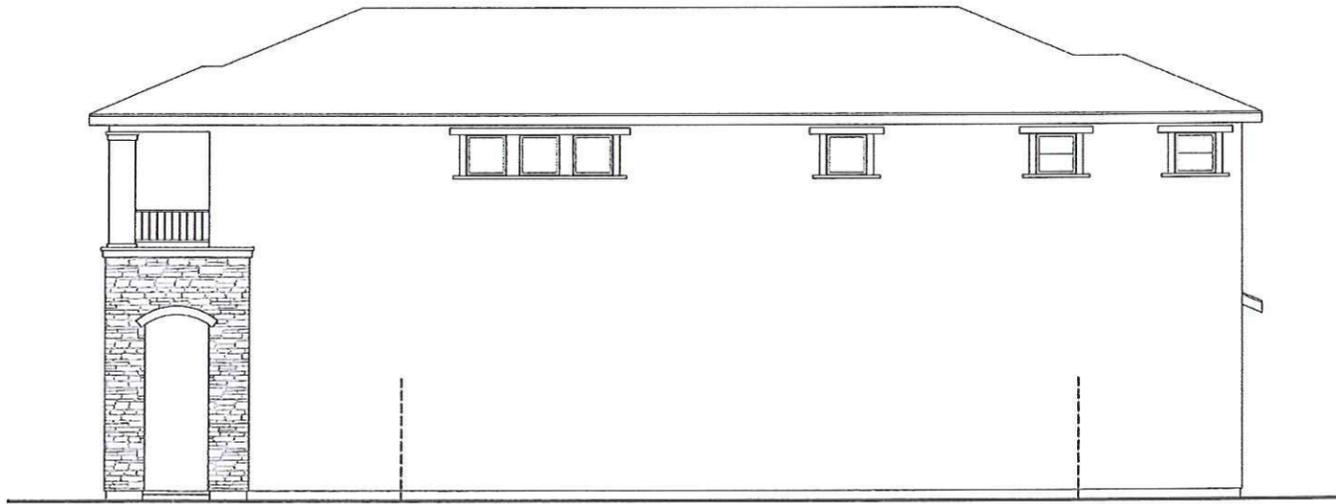
6' HIGH PRIVACY FENCE @ LOT 23

Left Side

This Elevation occurs on the 'Public View Side' of Lot 23



Roof Plan



Right Side (Interior Lot)

See Sheet D2.7 for Enhanced Elevation when occurs on the 'Public View Side' of a Lot



Rear

Plan Two
Tuscan Elevations

Note: 'Left' & 'Right' Titles on these elevations pertain to the standard plan with the front entry door located on the right side of the plan as indicated on these drawings. These Titles may be opposite to conditions shown on the Site Plan due to reverse plotting of the units.

0 2 4 8
SCALE: 1/4" = 1'-0"
November 9, 2012

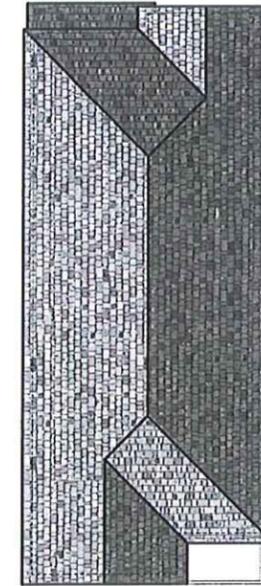
MILPITAS SFD
Milpitas, California
Castle Companies

D2.5

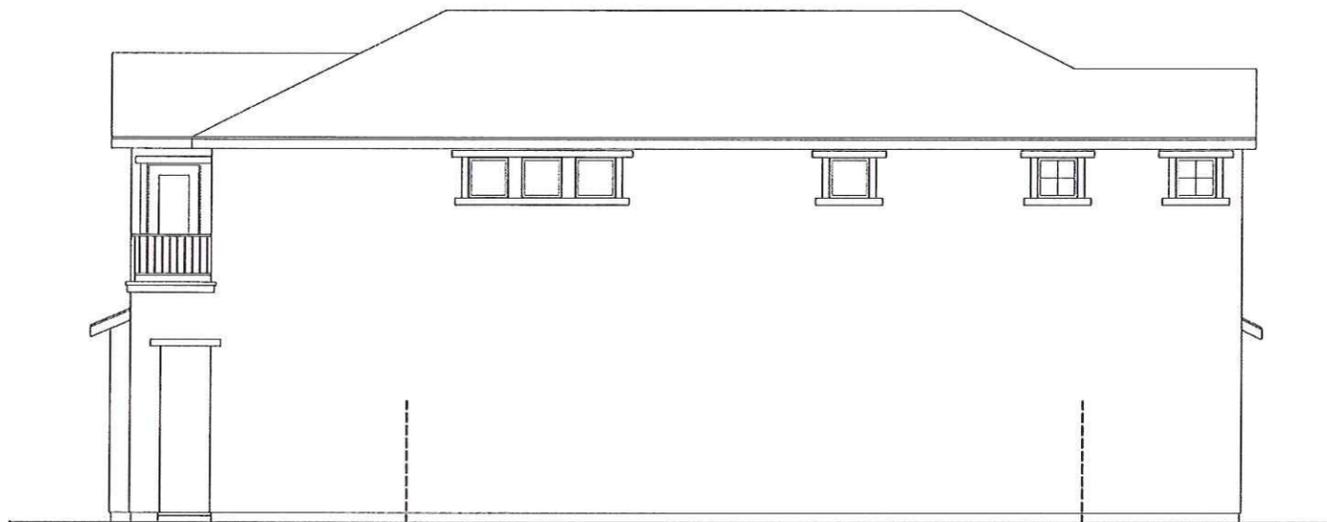


Left Side

This Elevation occurs on the 'Public View Side' of Lot 12



Roof Plan



Right Side (Interior Lot)

See Sheet D2.7 for Enhanced Elevation when occurs on the 'Public View Side' of a Lot



Rear

Note: 'Left' & 'Right' Titles on these elevations pertain to the standard plan with the front entry door located on the right side of the plan as indicated on these drawings. These Titles may be opposite to conditions shown on the Site Plan due to reverse plotting of the units.

Plan Two
English Elevations

0 2 4 8
SCALE: 1/4" = 1'-0"
November 9, 2012

MILPITAS SFD
Milpitas, California
Castle Companies

D2.6



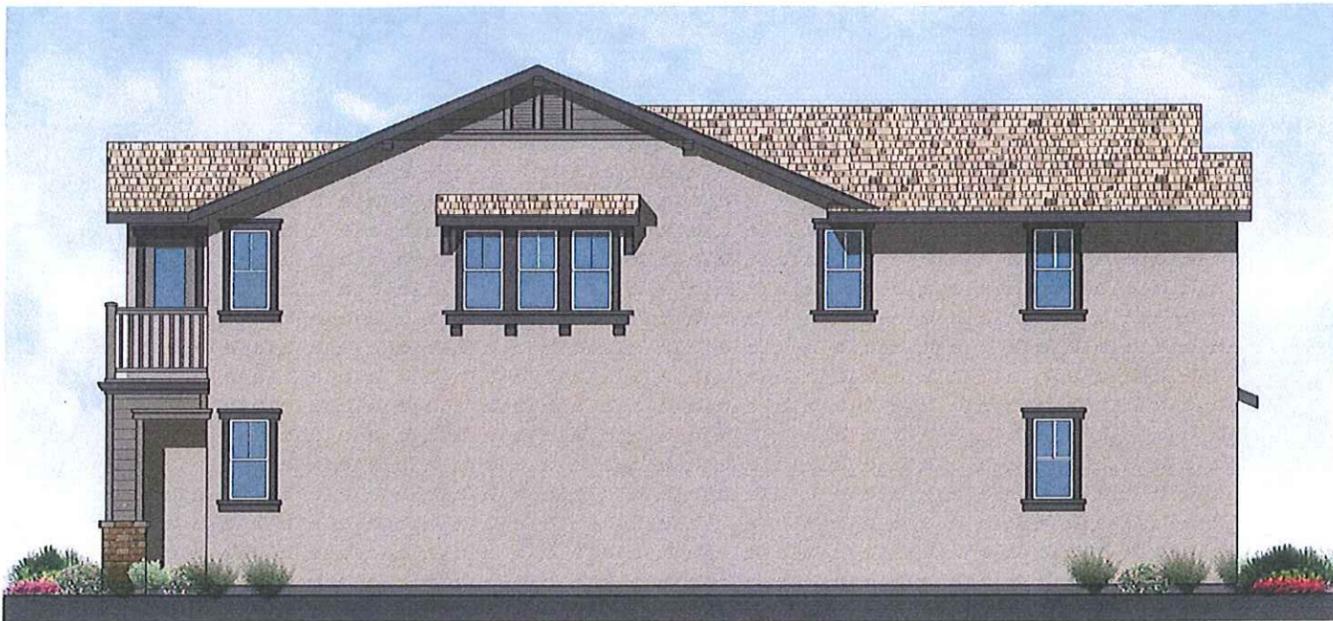
English (Exterior Lot)

This Elevation occurs on the 'Public View Side' of Lots 13, 19, & 28



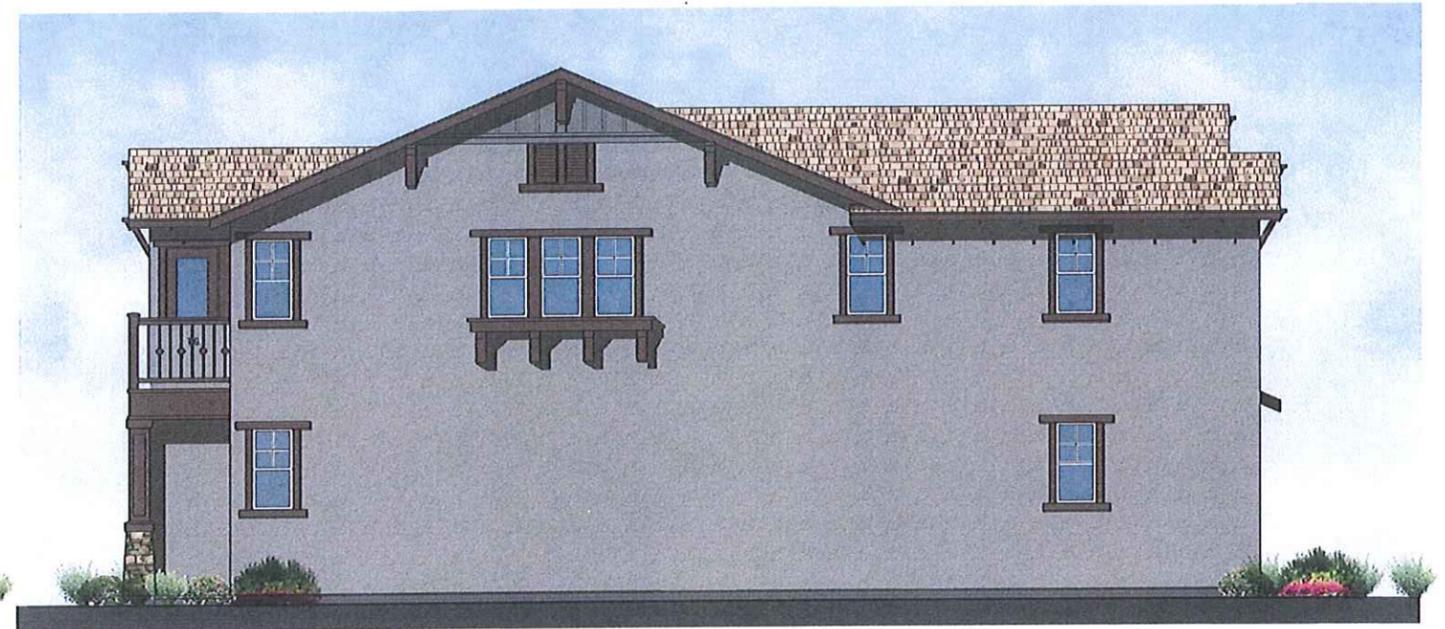
Tuscan (Exterior Lot)

This Elevation occurs on the 'Public View Side' of Lot 27



Traditional (Exterior Lot)

This Elevation occurs on the 'Public View Side' of Lots 9 & 20



Craftsman (Exterior Lot)

This Elevation occurs on the 'Public View Side' of Lots 1 & 25

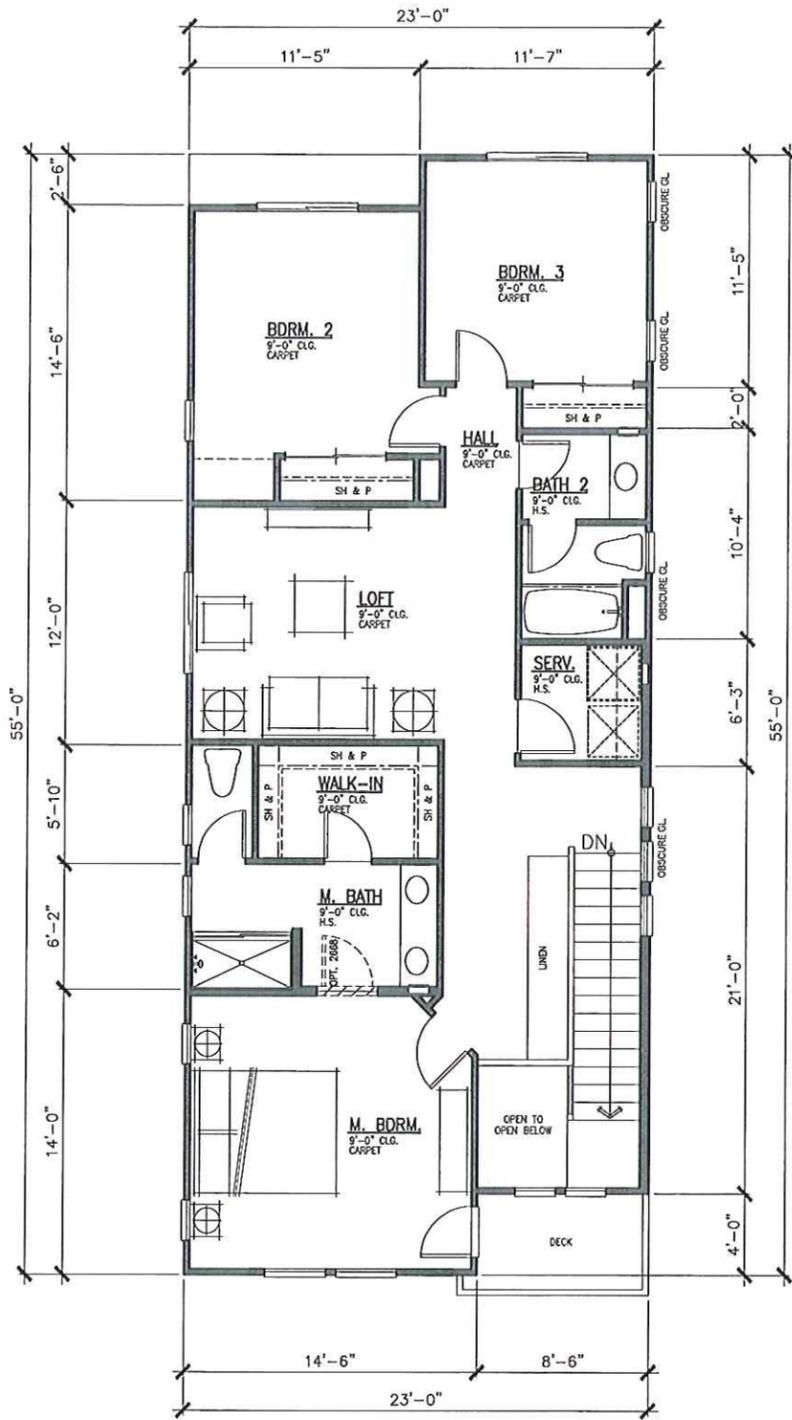
Note: 'Left' & 'Right' Titles on these elevations pertain to the standard plan with the front entry door located on the right side of the plan as indicated on these drawings. These Titles may be opposite to conditions shown on the Site Plan due to reverse plotting of the units.

Plan Two
Enhanced Right Side Elevations

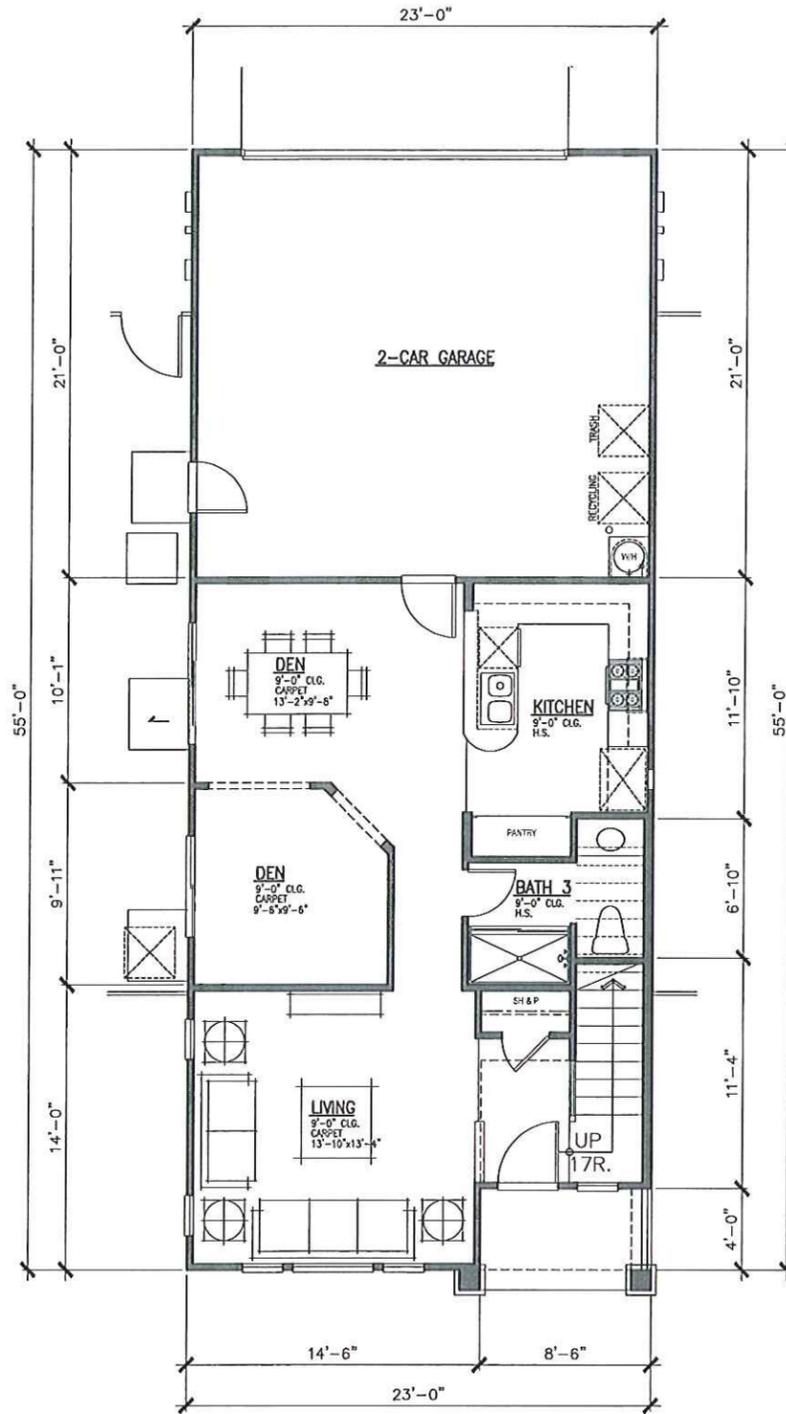
0 2 4 8
SCALE: 1/4" = 1'-0"
November 9, 2012

MILPITAS SFD
Milpitas, California
Castle Companies

D2.7



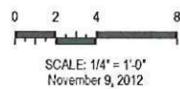
UPPER LEVEL PLAN



LOWER LEVEL PLAN

Plan Two
 1865 Square Feet
 3 Bedrom, Den & Loft w/ 3 Baths
 2-Car Garage

(The Traditional Elevation is shown in plan here, other Elevation Styles may vary in fenestration)

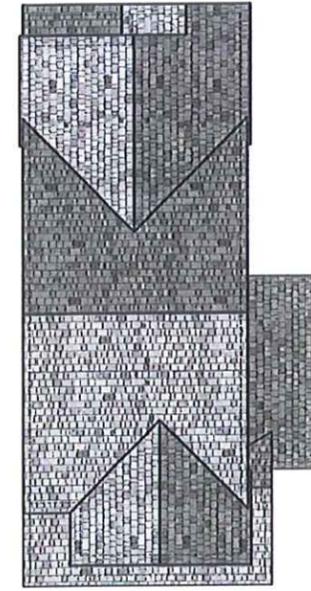


MILPITAS SFD
 Milpitas, California
 Castle Companies

D2.1

Craftsman Elevation

- Roof: Composition Shingle
- Fascia: Gutter o/ 2x6 Wood
- Barge: 2x6 Wood
- Walls: 3-Coat Stucco
- Trim: Stucco o/ Foam
- Accents: Gable End Siding
Outlookers & Knee Braces
Wood Deck Railing
Stone Veneer



Roof Plan



Front (Los Coches St.)



Right Side (S. Milpitas Blvd.)

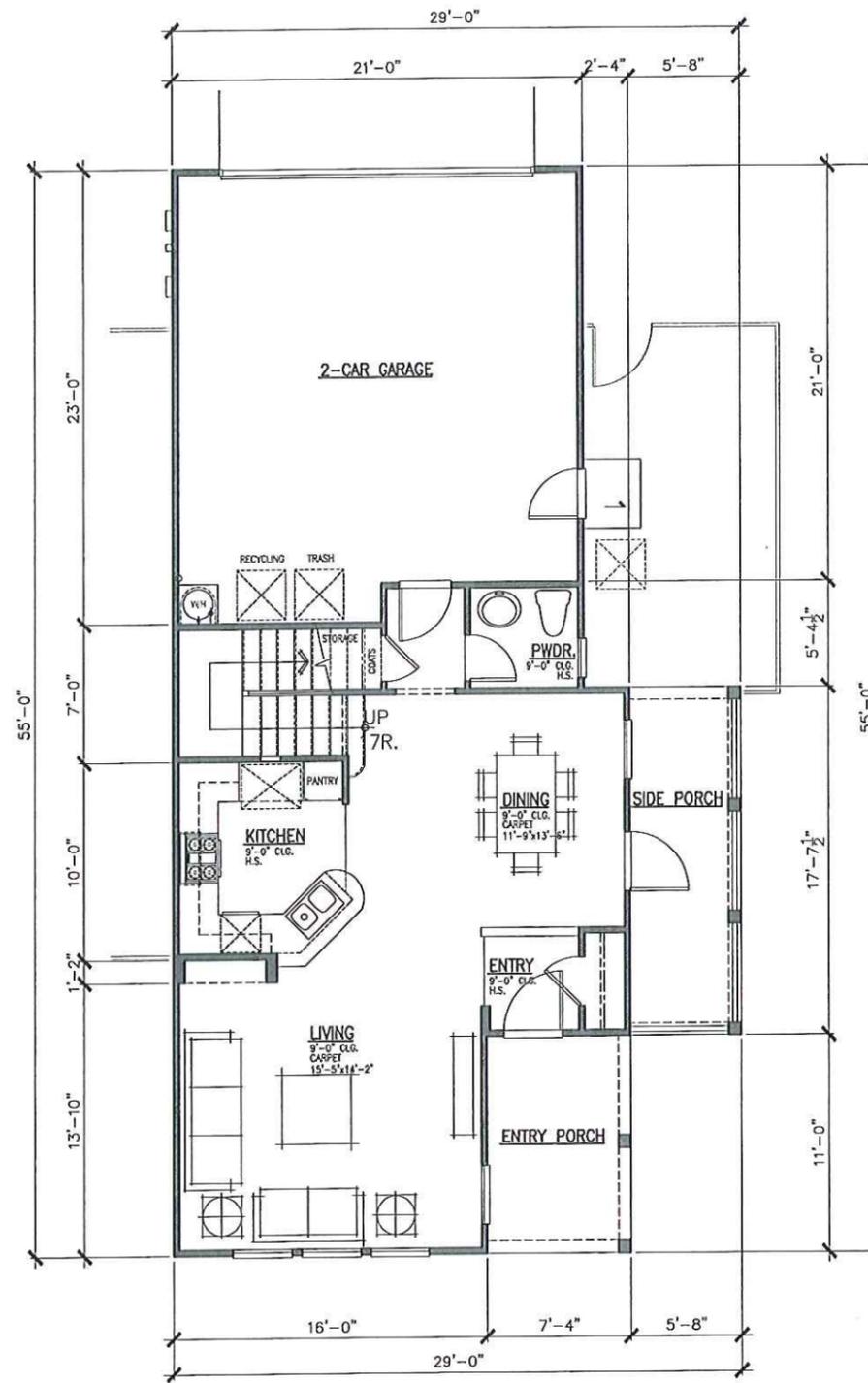
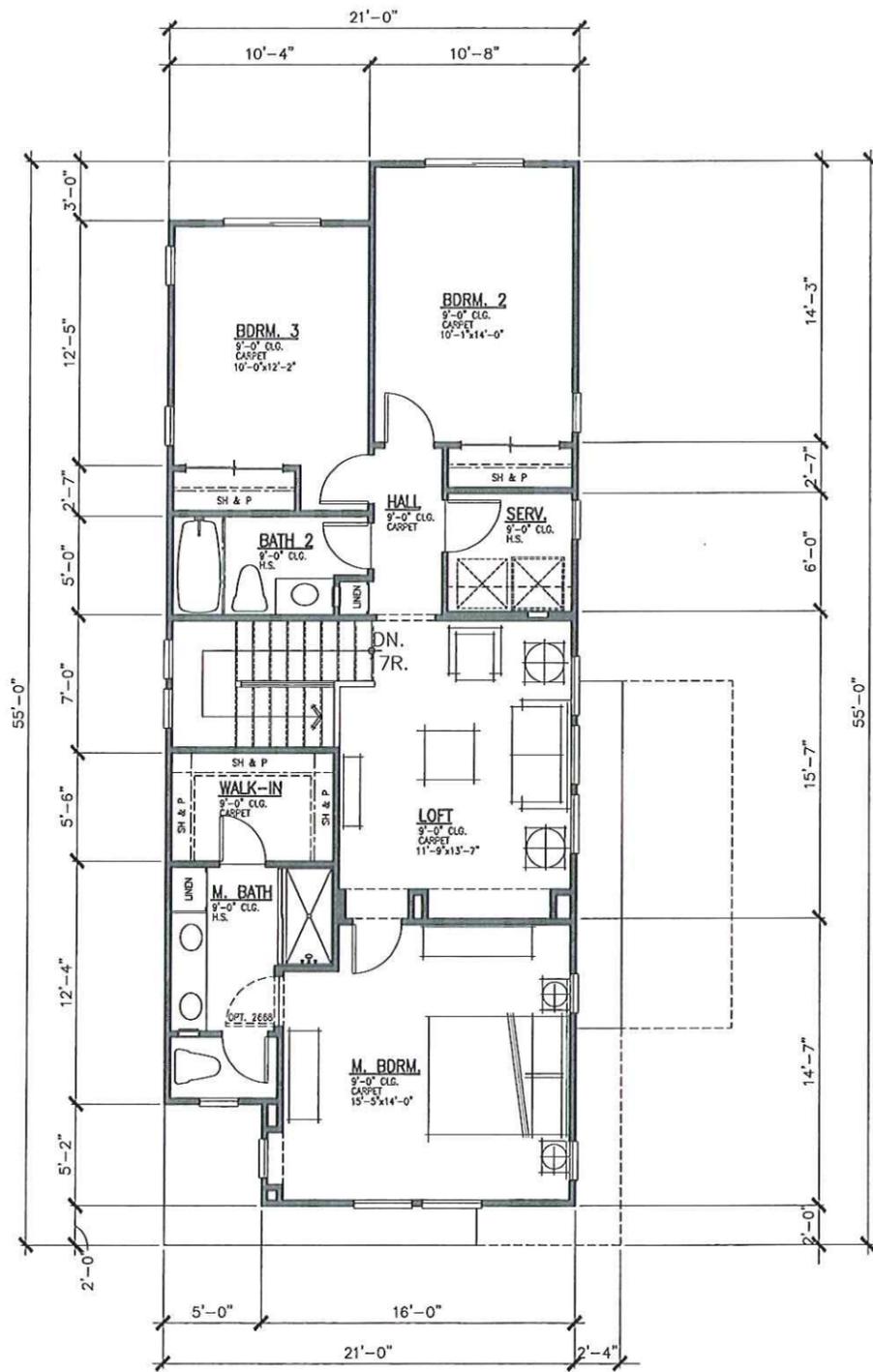
See Plan 1 Craftsman Elevations, sheet D1.3,
for the Rear and Left Side Elevations.

Plan One - Lot 8
Craftsman Elevations

0 2 4 8
SCALE: 1/4" = 1'-0"
November 9, 2012

MILPITAS SFD
Milpitas, California
Castle Companies

D1.7



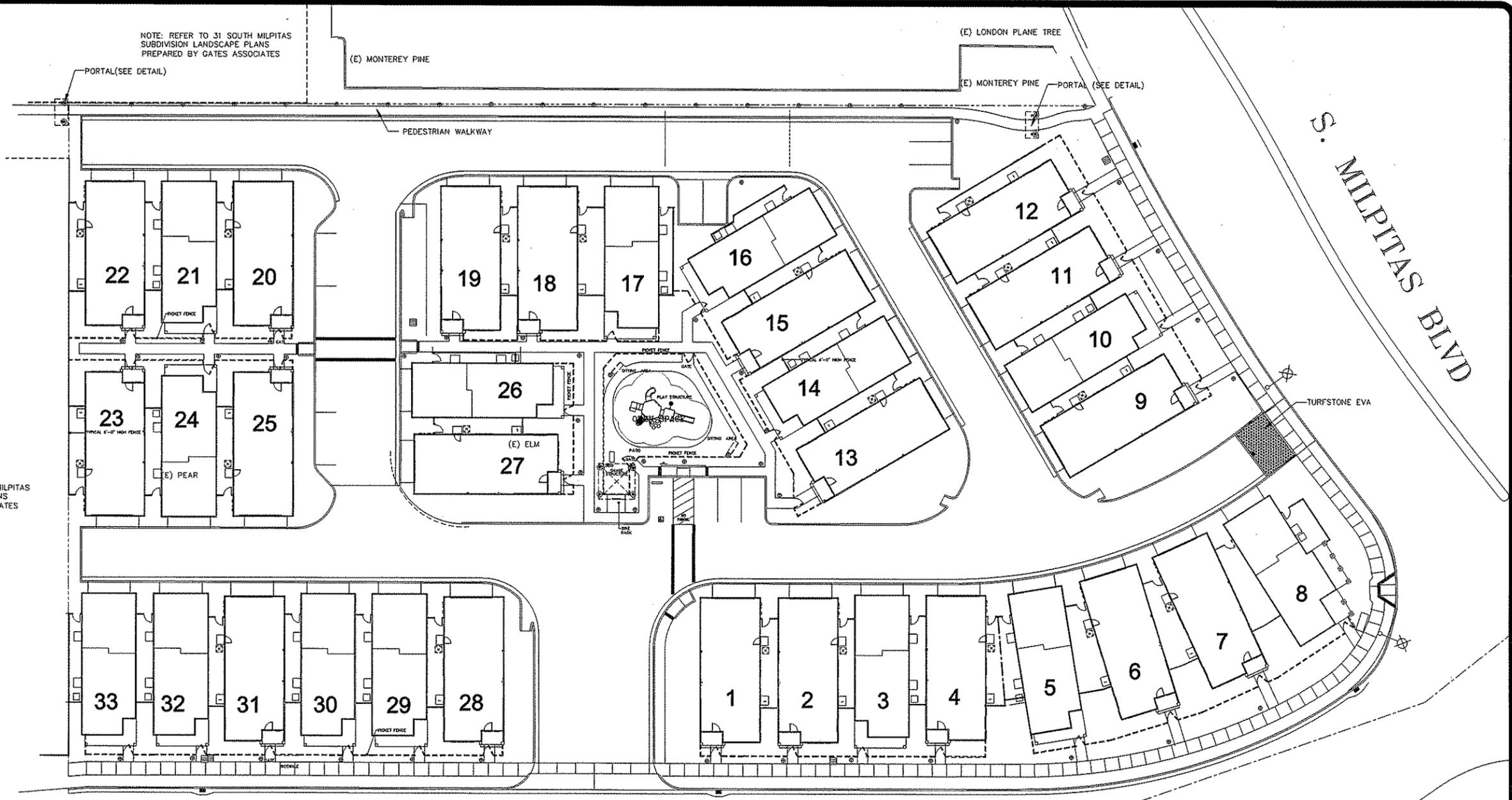
Plan One Special - Lot 8
 1734 Square Feet
 3 Bedroom & Loft w/ 2 1/2 Baths
 2-Car Garage

MILPITAS SFD
 Milpitas, California
 Castle Companies

0 2 4 8
 SCALE: 1/4" = 1'-0"
 November 9, 2012

D1.6

NOTE: REFER TO 31 SOUTH MILPITAS
SUBDIVISION LANDSCAPE PLANS
PREPARED BY GATES ASSOCIATES

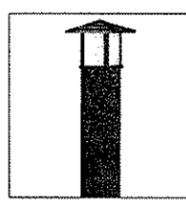


NOTE: REFER TO 31 SOUTH MILPITAS
SUBDIVISION LANDSCAPE PLANS
PREPARED BY GATES ASSOCIATES

LOS COCHES ST.



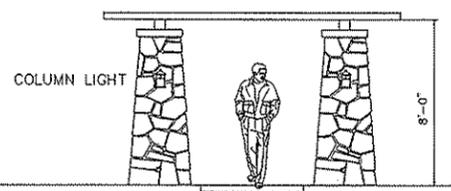
COLUMN LIGHT FIXTURE



BOLLARD LIGHT FIXTURE

LIGHTING LEGEND

- ⊕ PHILLIPS ALUMINUM BOLLARD (IWBB3) PATHLYTE
- FORTE #17019-01-09 COLUMN LIGHT FIXTURE
- ⊗ EXISTING STREET LIGHT



NOTE: DESIGN SHALL MATCH PORTAL DESIGN
PREPARED BY GATES ASSOCIATES.
PEDESTRAIN WALKWAY PORTAL



SCALE
0 10 20

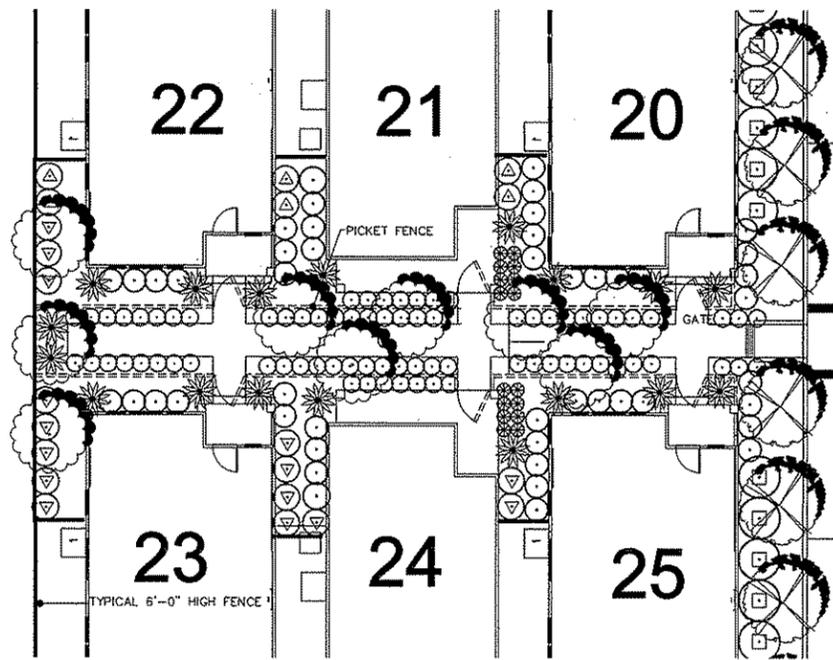
LANDSCAPE LIGHTING PLAN

REVISIONS	BY:
	JIM

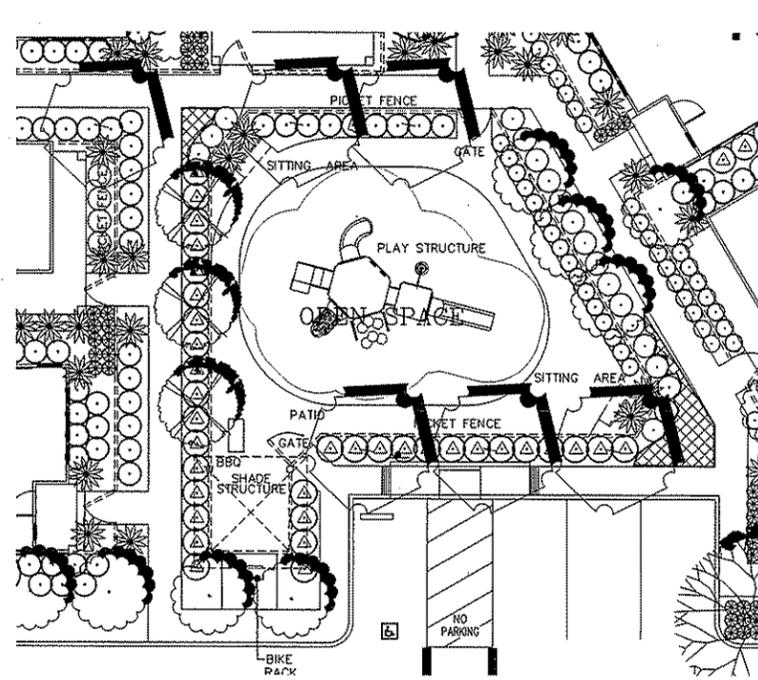
LOS COCHES
MILPITAS, CALIFORNIA

JAMES SWANSON - LANDSCAPE ARCHITECT
510-18 CLAYTON ROAD #105 - COSTA MESA, CALIFORNIA 92626
PHONE: (949) 672-5062 FAX: (949) 672-9671

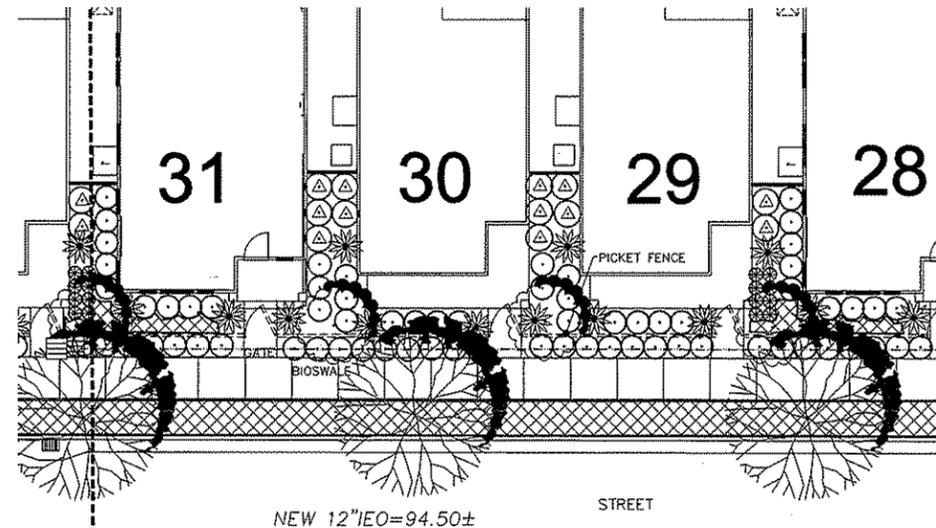
JIM	DRAWN
JIM	CHECKED
11/13/12	DATE
1"=20'	SCALE
	JOB NO.
	SHEET
L-1	OF SHEETS



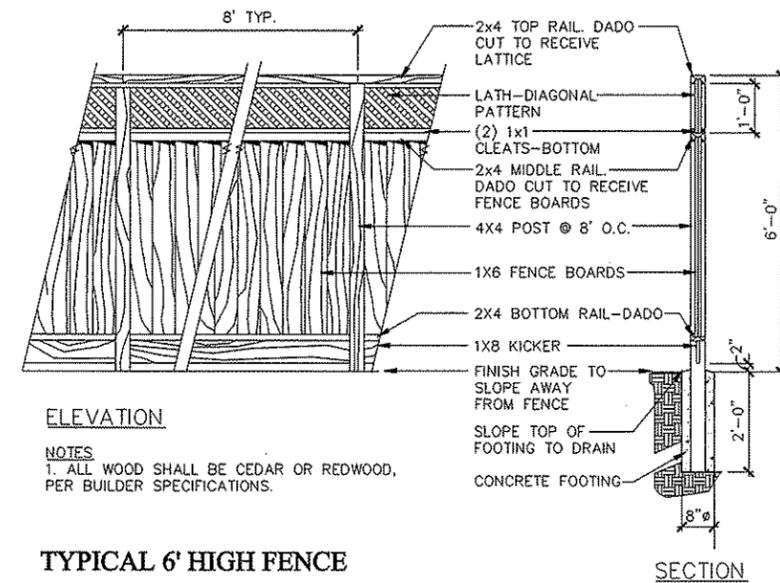
TYPICAL INTERIOR LANDSCAPES



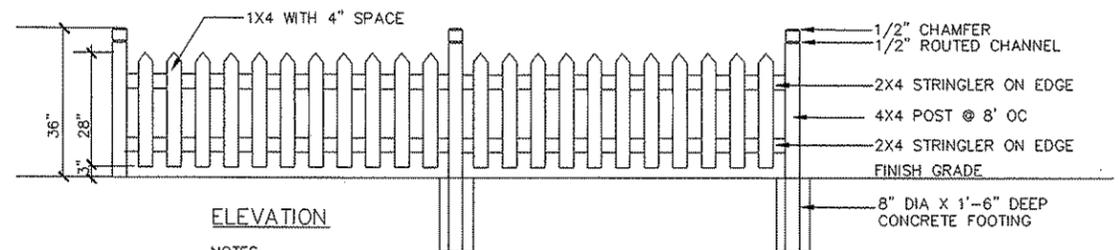
RECREATION AREA



TYPICAL STREET FRONT LANDSCAPES



TYPICAL 6' HIGH FENCE



WHITE PICKET FENCE

PROPOSED PLANT MATERIALS

SMALL FLOWERING TREES SUCH AS:	24" BOX SPECIMEN
ARBUS U. 'STANDARD'	STRAWBERRY TREE
PHOTINIA F. 'STANDARD'	SCARLET TOYON
LAGERSTROEMIA I. 'CHEROKEE'	GRAPE MYRTLE
VERTICAL ACCENT TREE SUCH AS:	24" BOX SPECIMEN
CARPINUS 'FRANS FONTAINE'	HORNBEAM
CONIFEROUS TREES SUCH AS:	24" BOX SPECIMEN
PINUS CANARENSIS	CANARY ISLAND PINE
SEQUOIA SEMPERVIRENS	COAST REDWOOD
FLOWERING TREES SUCH AS:	24" BOX SPECIMEN
PRUNUS C. 'KRAUTER VESUVIUS'	FLOWERING PLUM
ARBUS 'MARINA'	MARINE ARBUS
CRATAEGUS LAEVIGATA	ENGLISH HAWTHORN
DECIDUOUS SHADE TREES SUCH AS:	24" BOX SPECIMEN
PISTACHIA CHINENSIS	CHINESE PISTACHE
ACER NIGRUM	BLACK MAPLE
ULMUS PARVIFOLIA	CHINESE ELM
PYRUS C. 'ARISTOCRAT'	ARISTOCRAT PEAR
EVERGREEN SHADE TREES SUCH AS:	24" BOX SPECIMEN
OLEA EUROPAEA 'SWAN HILL'	OLIVE

TALL SHRUBS SUCH AS:	5 GALLON SIZE
PHOTINIA FRASERI	SCARLET TOYON
XYLOSMA CONGESTUM	XYLOSMA
MEDIUM HIGH SHRUBS SUCH AS:	5 GALLON SIZE
ESCALLONIA FRADESI	ESCALLONIA
LIGUSTRIUM JAPONICUM	WAXLEAF PRIVET
NANDINA DOMESTICA	HEAVENLY BAMBOO
VIBURNUM 'SPRING BOUQUET'	VIBURNUM
LOW SHRUBS SUCH AS:	5 GALLON SIZE
COLEONEMA P. 'SUNSET GOLD'	BREATH OF HEAVEN
RHAPHIOLEPIS I. 'SPRINGTIME'	INDIA HAWTHORN
RHAPHIOLEPIS I. 'BALLERINA'	INDIA HAWTHORN
LAVENDULA ANGUSTIFOLIA	ENGLISH LAVENDER
ROSMARINUS 'TUSCAN BLUE'	UPRIGHT ROSEMARY
LANTANA MONTEVIDENSIS	LANTANA
TRACHELOSPERMUM 'JASMINODES'	STAR JASMINE
MEDIUM SIZE ACCENT SHRUBS SUCH AS:	5 GALLON SIZE
DIETES IRIDIODES	FORTNIGHT LILY
PHORMIUM 'BRONZE BABY'	NEW ZEALAND FLAX
PHORMIUM 'APRICOT GREEN'	VARIEGATED NEW ZEALAND FLAX
PHORMIUM 'MAORI QUEEN'	VARIEGATED NEW ZEALAND FLAX
SMALL SIZE ACCENT SHRUBS SUCH AS:	1 GALLON SIZE
NANDINA D. 'COMPACTA'	COMPACT HEAVENLY BAMBOO
AGAPANTHUS AFRICANUS	LILY OF THE NILE
HEMEROCALLIS 'YELLOW EVERGREEN'	EVERGREEN DAYLILY
TULBAGHIA WOLACEA	SOCIETY GARLIC

GROUND COVERS	
COTONEASTER 'LOW FAST'	PROSTRATE COTONEASTER
GAZANIA 'MITSUWA YELLOW'	YELLOW GAZANIA
SOD LAWN - TO BE TALL FESCUE	
BIO-SWALE PLANTINGS	

TYPICAL FRONT YARD LANDSCAPES/ PLANT MATERIALS LIST/FENCING DETAILS

REVISIONS	BY:
	JEM
	JEM

JAMES SWANSON - LANDSCAPE ARCHITECT
 500-18 CA CENTER ROAD #18 - CONCORD, CALIFORNIA 94521
 PHONE: (925) 825-5400 FAX: (925) 825-5401

LOS COCHES
 MILPITAS, CALIFORNIA

JEM	DRAWN
JEM	CHECKED
DATE	11/13/12
SCALE	AS SHOWN
JOB NO.	
SHEET	L-2
OF SHEETS	

RECEIVED

JUL 02 2012

CITY OF MILPITAS
PLANNING DIVISION

PHASE I ENVIRONMENTAL SITE ASSESSMENT
MILPITAS RESIDENTIAL, LOTS 1 AND 2 (APN 086-39-001 and 002)
SOUTH MILPITAS BOULEVARD AND LOS COCHES STREET
FREMONT, CALIFORNIA

for
DRG BUILDERS, INC.
March 23, 2012

Job No. 3390.900

BERLOGAR STEVENS & ASSOCIATES

Via E-mail and Mail

March 23, 2012
Job No. 3390.900

**BERLOGAR
STEVENS &
ASSOCIATES**

Mr. Doyle Heaton
DRG Builders, Inc.
3480 Buskirk Avenue, Suite 260
Pleasant Hill, California 94523

Subject: Phase I Environmental Site Assessment
Milpitas Residential, Lots 1 and 2 (APN 086-39-001 and 002)
South Milpitas Boulevard and Los Coches Street
Milpitas, California

Dear Mr. Heaton:

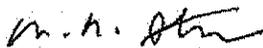
Berlogar Stevens & Associates has completed a Phase I Environmental Site Assessment for the subject site located in Milpitas, California. We did not find evidence that current use of the property or activity at neighboring properties would indicate the likelihood of environmental impairment to the subject property. Additionally, we did not observe indications of hazardous material contamination or identify significant concerns at the site. In our opinion, the site does not warrant further investigation.

I declare that, to the best of my professional knowledge and belief, I meet the definition of environmental professional as defined in §312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the All Appropriate Inquiries in conformance with the standards of practice set forth in 40 CFR part 312.

This Phase One Environmental Site Assessment is valid for 180 days from the date issued. If you have any questions, please contact us at (925) 454-0220.

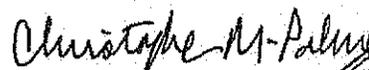
Respectfully submitted,

BERLOGAR STEVENS & ASSOCIATES


William R. Stevens
Principal Engineer
GE 2339

CP/WRS:jmb

Copies: Addressee (6)


Christopher M. Palmer
Senior Consulting Geologist
CEG 1262



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5.0 RECORDS REVIEW	6
6.0 SITE RECONNAISSANCE	11
7.0 INTERVIEWS	14
8.0 FINDINGS	14
9.0 DATA GAPS AND DEVIATIONS	14
10.0 CONCLUSIONS	15

PLATES and APPENDICES

Plate 1 – Vicinity Map

Plate 2 – Site Plan

Appendix A	Site Photographs
Appendix B	EDR Radius Map
Appendix C	EDR Aerial Photographs
Appendix D	EDR Historic Topographic Maps
Appendix E	EDR Historic Sanborn Map
Appendix F	EDR Environmental Lien Search Report
Appendix G	EDR City Directory Abstract
Appendix H	EDR Property Tax Map Report
Appendix I	EDR Building Permits
Appendix J	Interview and Research Documentation
Appendix K	Resumes

1.0 EXECUTIVE SUMMARY

PROJECT SUMMARY TABLE				
HAZARD	ACCEPTABLE	ACCEPTABLE REQUIRES O & M	CONCERN- POSSIBLE REMEDY	ADDITIONAL STUDY REQUIRED
Site History	X			
Database Review	X			
Visual Observations	X			
Asbestos		X		
PCB's	X			
UST's & AST's	X			
Radon	X			
Lead-based Paint	X			
Drinking Water	X			

1.1 Background

Berlogar Stevens & Associates (BSA) has conducted a Phase I Environmental Site Assessment of the property identified as Milpitas Residential Lots 1 and 2 (undeveloped lot at 345 Los Coches Street and developed lot at 375 Los Coches Street) Milpitas, California. The assessment included a review of the property's prior-use history, a review of neighboring properties based on reasonably ascertainable environmental databases, a visual reconnaissance for hazardous-material contamination, a preliminary screening for asbestos-containing building materials (ACBM), lead-based paint (LBP), drinking water quality and radon, and a search for above-ground storage tanks (AST's), underground storage tanks (UST's), and equipment containing polychlorinated biphenyls (PCB's).

The subject property is located in an area of residential and light commercial development. The subject property consists of a roughly rectangular-shaped parcel of land of approximately 2.7 acres and is currently developed with one building at 375 Los Coches Street.

1.2 Observations and Conclusions

We have performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E 1527-05. Any exceptions to, or deletions from this practice, are described in this report. This assessment has not revealed evidence of recognized environmental conditions in connection with the property. A Phase Two Environmental Site Assessment is not warranted.

The property is developed with a one-story building with paved parking areas and landscaping. BSA did not find evidence that current use of the property or activity at neighboring properties that would indicate the likelihood of environmental impairment to the subject property. In addition,

BSA did not observe visual evidence of hazardous-material contamination, indications of improper hazardous material storage or disposal, or identify significant concerns relating to PCBs, USTs, ASTs or radon at the subject property.

1.3 Certification and Limitations

The investigation was conducted on behalf of and for the exclusive use of DRG Builders, Inc. solely for use in an environmental evaluation of the property. This report and findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party, in whole or in part without prior written consent of Berlogar Stevens & Associates. However, Berlogar Stevens & Associates acknowledges and agrees that the report may be conveyed to and relied upon by DRG Builders, Inc., its successors and assigns, rating agencies, banks and bond investors.

Berlogar Stevens & Associates, its principal, and its employees have no present or contemplated interest in the property. Our employment and compensation for preparing this report are not contingent upon our observations or conclusions.

The investigation has been performed in a professional manner using the degree of care and skill ordinarily exercised by and consistent with the standards of competent consultants practicing in the same or similar locality as the Project. The reported observations and conclusions are limited only by the reported assumptions and limiting conditions and represents our unbiased and professional analysis, opinions, and conclusions. No other warranty, expressed or implied, is made or intended. The information in this report is from sources deemed to be reliable; however, no representation or warranty is made as to the accuracy thereof.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. This study is designed to reduce but not eliminate uncertainty regarding the existence of such conditions in a manner that recognizes reasonable limits of time and cost. Please note that the "shelf life" of this ESA is six months from the report date.

2.0 INTRODUCTION

Site Name: Proposed Residential Property

Site Address: Lot 1, 345 Los Coches Street and Lot 2, 375 Los Coches Street,
Milpitas, California

Assessor's Parcel Number: 086-39-001 and 002

2.1 Background

Berlogar Stevens & Associates (BSA) was retained to conduct a Phase I Environmental Site Assessment at the above referenced property. The purpose of the assessment was to provide to a preliminary degree, an objective, independent, professional opinion of the potential environmental risks, if any, associated with the subject property.

The Environmental Site Assessment included a visual reconnaissance of the property and immediate vicinity, and a review of regulatory agency public records. The regulatory information sources are listed by agency in the following sections, and include federal, state, and local databases. Photographs of the subject property were taken in preparing this report. Relevant photographs are included in this report as Appendix A and copies of photographs taken are maintained in BSA's files.

As part of the assessment, BSA representative Christopher Palmer conducted a site reconnaissance on December 28, 2011. The weather was sunny at the time of the site reconnaissance.

2.2 Scope of Work

The purpose of this environmental assessment was to identify the immediate and most recognizable environmental concerns at the subject property. The assessment was generally performed in accordance with the recommendations presented in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, E1527-05 and accepted industry standards/practice.

The specific scope of work included the following: Prior Use History Review, Environmental Database Review, Visual Reconnaissance, Preliminary ACBM Screen, PCB Equipment Search, AST and UST Search, Preliminary/Radon Review, Preliminary LBP Screening, and Drinking Water Quality.

2.3 Significant Assumptions

The information in this report is from sources deemed to be reliable; however, no

representation or warranty is made as to the accuracy thereof.

2.4 Limitations and Exceptions

The investigation has been performed in a professional manner using the degree of care and skill ordinarily exercised by and consistent with the standards of competent consultants practicing in the same or similar locality as the Project. The reported observations and conclusions are limited only by the reported assumptions and limiting conditions and represents our unbiased and professional analysis, opinions, and conclusions. No other warranty, expressed or implied, is made or intended. BSA did not interview the previous property owner or any of the neighbors of the subject property.

2.5 User Reliance

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. This study is designed to reduce but not eliminate uncertainty regarding the existence of such conditions in a manner that recognizes reasonable limits of time and cost.

3.0 SITE DESCRIPTION

3.1 Site Location

The approximately 2.7-acre property; Lot 1 at 345 Los Coches Street is not developed, and Lot 2 at 375 Los Coches Street is developed with a one-story, 19,600 square foot building. The irregularly shaped parcel is located at South Milpitas Boulevard at Los Coches Street in Milpitas. The property APN is 086-39-001 and 002 (see Plates 1 and 2 and Site Photographs in Appendix A). It is our understanding that the Genesis United Methodist Church is the current property owner of the undeveloped lot (345 Los Coches Street). Less Properties, LLC owns the 375 Los Coches Street property.

3.2 Site Description

The site is relatively flat at an elevation of about 21 feet MSL.

3.3 Current Use of the Property

The 375 Los Coches Street property is currently developed with an office building with landscaping and paved parking areas; the building is currently vacant. Lot 2 at 345 Los Coches Street is undeveloped.

3.4 Current Uses of Adjoining Properties

The subject property is located in an area of residential and light commercial development in Fremont, California and is bordered as follows:

North -	Commercial building development.
East -	South Milpitas Boulevard and commercial building development.
South -	Los Coches Street and commercial building development.
West -	Commercial building development.

3.5 Topography

The subject property is located at an elevation of approximately 21 feet above mean sea level, based on the United States Geologic Survey Topographic Quadrangle Map, Niles California. The area is undeveloped on the 1899 and 1961 San Jose 15 minute, and 1953, 1961, 1968, 1973 and 1980 Milpitas 7.5 minute maps (see Appendix D).

3.6 Surface Water Characteristics

BSA did not observe any surface water on the site or adjacent to the site; the nearest water body is Berryessa Creek about 400 feet north. The site is flat and is mapped inside a 100-year flood zone or 500-year flood zone, according to the Flood Insurance Rate Map by the Federal Emergency Management Agency, No. 06085C.

3.7 General Geologic Characteristics

The site is located in northeastern Santa Clara County. The property is underlain by alluvium composed of sand, gravel, silt and clay. Large, active northwest-southeast trending faults that historically generate damaging earthquakes occur to the east of the property in the hills; the active Hayward fault is about 1.5 miles to the east. Shallow ground water that might be present in the area may occur in thin discontinuous unconfined sandy aquifers within about the upper 50 to 100 feet and streams and surface water infiltration recharge the aquifers. Large aquifers used for drinking and agricultural water occur beneath the site region in the Santa Clara Valley Groundwater Basin. Regional ground water flow direction in the area is estimated as westerly towards San Francisco Bay.

3.8 Water System

The subject property is connected to a public water source at 375 Los Coches Street.

4.0 USER PROVIDED INFORMATION

4.1 Title Records

A 50-year chain of Title was not provided by the client for BSA's review nor was one readily available for review.

4.2 Environmental Liens or Activity Use Limitations

A search for environmental liens and activity use limitations (AUL) did not reveal any liens or activity use limitations for the property (see EDR Environmental Lien Report in the appendices).

4.3 Specialized Knowledge

There was no special knowledge provided to BSA for the subject property

4.4 Commonly Known or Reasonably Ascertainable Information

BSA has searched available State, City and County sources for property information and has had a database provider search the property APN/address.

4.5 Valuation Reduction for Environmental Issues

There is no information provided to BSA regarding any property value reduction issues.

4.6 Owner, Property Manager, and Occupant Information

BSA did not interview the current or previous owner for this study.

4.7 Reason for Performing Phase I

It is BSA's understanding that this Phase I ESA report is being used as part of anticipated future property development.

5.0 RECORDS REVIEW

BSA reviewed the prior use history of the subject property. BSA attempted to review as many sources that were both reasonably ascertainable and likely to be useful as required by ASTM guidance. The review attempted to identify the prior usage back to the earlier of either the property's first developed use or 1940 (see the EDR Radius Map Report in Appendix B). It should be noted that Lot 1, 345 Los Coches Street is A.K.A. 124 South Milpitas Boulevard in the EDR searches.

5.1 City/County/State Records Review

A review of the City of Milpitas Building Department found building permits that appeared to be filed for the subject property APN/address. The property at 375 Los Coches Street was initially developed as a commercial office building and had permits for building improvements (see Interview and Research Documentation in the appendices). A note in the files states that hazardous materials are not used in the

building. A certificate of occupancy (dated March 17, 1987 for business name UTI), and a permit number 69944 dated 2/7/76 with mechanical plans and building calculations for Read Rite was also in the file. There were no files for the 345 Los Coches Street address.

The Santa Clara County Environmental Health Department maintains records of tanks and hazardous materials. There were no records of underground fuel storage tanks or reported problems for the subject property APN/address.

A review of the State Department of Toxic Substances ENVIROSTOR database did not reveal any listing of files for the site addresses of 375 Los Coches Street. However there was an entry for 345 Los Coches Street for a tiered permit for Read Rite Corp. (see appendices). It is our view that this permit was apparently not used and the address was never used by Read Rite. Read Rite has not occupied the 375 Los Coches Street building since about 2000 according to the city directory information (see Sec. 5.4)

A review of the San Francisco Bay Area Regional Water Quality Control Board (RWQCB) database did not reveal any listing or files for the site address. The property is not listed on RWQCB GeoTracker.

5.2 Sanborn Fire Insurance Maps

Sanborn Fire Insurance Maps (see appendices) show the location and use of structures on a property at a given point in time and are widely available for areas that were significantly developed during the late 1800s through the 1950s. The EDR Certified Sanborn Map search showed there was no mapping for this site.

5.3 Aerial Photographs

BSA reviewed single aerial photographs for 1939, 1946, 1958, 1965, 1974, 1982, 1993, 1998, 2005 and 2006 from the EDR Aerial Photography Print Service and Google Earth aerial photographs dated October 30, 2002 and August 22, 2003 (see Appendix C). A review of the aerial photographs listed by year and source showed the following:

1939 (Fairchild, 1"=555') – The subject property appears to be undeveloped and in row crop or grain agricultural use.

1948 (USGS, 1"=655') – The subject property appears similar to the previous photograph however no crop use is observed.

1956 (Aero, 1"=555') – The subject property appears similar to the previous photograph, with possibly a row crop planted.

1965 (Cartwright 1"=333') – The subject property appears similar to the previous photograph.

1975 (NASA 1"=601') – The subject property appears similar to the previous photograph.

1982 (USGS 1"=690') – The subject property appears undeveloped and the land use has changed to urban with numerous commercial developments and streets constructed.

1993 (EDR 1"=500') – The subject property appears similar to the previous photograph and the building at 375 Los Coches Street has been constructed. Lot 1 is still undeveloped. Urban development continues to occur around the property.

1998 (USGS 1"=666') – The subject property appears similar to the previous photograph.

2005 (EDR 1"=500') – The subject property appears similar to the previous photograph.

2006 (EDR 1"=500') – The subject property appears similar to the previous photograph.

5.4 City Directories

City and telephone directory record names and businesses located at a particular numeric property address by year (using the R. L. Polk & Co. City directories, Pacific Bell, Pacific Directory and Pacific Telephone phone books and the Haines Criss-Cross Directories as available). The EDR report with listings for surrounding addresses is presented in the appendices. The following listings were noted:

2002 Haines – No listing
2000 Haines – Read Rite
1991 Pacific Telephone White Pages– Universa Itechkat Institute, Read Rite
1996 Pacific Bell – Read Rite
1986 Pacific Bell – Read Rite, TLI Technology
1985 Pacific Bell – Read Rite, TU Technology

5.5 Summary of Historical Data

Based upon the information that was available and presented above, it appears that the subject property was undeveloped land according to topographic maps dating to before 1899 to about 1990. City directories show listing for 375 Los Coches Street in 1985, a certificate of occupancy is dated March 17, 1987 and the building is visible in a 1993 aerial photograph. Lot 1 adjacent to 375 Los Coches Street has not been developed to date. An interview (see Sec. 7.1 below) with a co-owner of 375 Los Coches Street indicates that the building has been used as an office since it was developed.

Based on the information provided above, it is BSA's professional opinion that the intent of the ASTM guidelines for prior use history has been met, and no prior usage of the subject property was identified that would indicate the need for additional study. EDR historical topographic maps are contained in the appendices.

5.6 Environmental Database Tables

BSA reviewed environmental databases provided by EDR to determine whether the subject property or neighboring properties were suspected of having or known to have environmental concerns likely to adversely impact the subject property. EDR has provided a tax map showing the parcel location as part of their EDR Map Report coverage (see appendices). A summary of the identified sites is provided in the tables for Federal, State and Local, Indian and EDR Proprietary databases below. A detailed listing and description of the databases reviewed and a listing of the sites identified are provided in the EDR Radius Map in the appendices.

Federal Records

List Name	Date rept active by EDR or Updated	Search Radius (mile/s)	Subject site Listed?	<1/8 mile	1/8-1/4 mile	1/4-1/2 mile	1/2-1 mile	Over 1 Mile	Total
NPL	9/29/11	1.0							0
Proposed NPL	9/29/11	1.0							0
Delisted NPL	9/29/11	1.0							0
NPL Liens	9/29/11	TP							0
CERCLIS	5/2/11	0.5							0
CERCLIS-NFRAP	5/2/11	1.0				2			2
CORRACTS	6/14/11	1.0					1		1
RCRA-TSD	8/8/11	0.5							0
RCRA-LQG	8/8/11	0.25			3				3
RCRA-SQG	8/8/11	0.25			1				5
RCRA-Non-Gen	8/8/11	0.25		1	2				0
ERNS	8/8/11	0.25							0
HMIRS	6/14/11	TP							0
US ENG CONTROLS	9/30/11	TP							0
US INST CONTROL	6/14/11	0.5							0
DOD	6/14/11	0.5							0
FUDS	9/11/11	1.0							0
US BROWN-FIELDS	12/02/10	1.0							0
CONSENT	9/13/11	0.5							0
ROD	9/29/11	1.0							0
UMTRA	9/29/11	1.0							0
ODI	1/28/11	0.5							0
TRIS	9/17/04	0.5							0
TSCA	3/21/11	TP							0
FTTS AND HIST FTTS	12/2/10	TP							0
SSTS	5/11/09 4/10/07	TP							0
US CDL	2/25/11	TP							0
PADS	9/29/11	TP							0
MLTS	2/16/11	TP							0
MINES	9/13/11	0.25							0
FINDS	9/29/11	TP							0
RAATS	2/27/10	TP							0

TP = Target Property

STATE RECORDS

List Name	Date rept active by	Search Radius	Subject site	<1/8 mile	1/8-1/4 mile	1/4-1/2 mile	1/2-1 mile	Over 1 Mile	Total
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	EDR or Updated	(mile/s)	Listed?						
Hist Cal-sites	8/24/06	1.0							
Toxic Pits	9/26/95	1.0							0
CDL	2/16/11	TP							0
CA Bond Exp. Plan	6/02/94	1.0							0
SCH	9/9/11	0.25							0
SWL/LF	10/3/11	0.5							0
CA WDS	6/29/07	TP							0
WMUDS/SWAT	5/10/00	0.5							0
NPDES	10/3/11	0.5							0
Cortese	7/15/11	0.5							0
Hist Cortese	4/8/09	0.5							0
Hist UST	2/18/10	0.5		3	7				10
LUST	1/2/11	0.5		1	10				11
SLIC	9/12/11	0.25			2				2
UST	9/9/11	0.25		1					1
CA FID UST	5/14/09	0.25		1					1
HIST UST	1/28/11	0.5		1	6				7
SWRCY	7/15/11	0.25			1				1
AST	10/1/09	1.0							0
WIP	8/3/09	0.25							0
SWEEPS UST	8/11/05	0.25		2					2
CHMIRS	6/15/11	TP							0
Notify 65	11/19/93	1.0							0
DEED	1/18/10	0.5							0
VCP	9/9/11	0.5							0
DRY CLEANERS	8/11/11	0.25							0
RESPONSE	9/9/11	TP					1		1
HAZNET	8/16/11	0.25							0
HWP	8/20/10	TP					1		1
EMI	10/18/10	TP							0
ENVIROSTAR	9/9/11	TP		3	8	11			22
Alameda DEH	3/8/11	1.0			1				1

TP = Target Property

EDR PROPRIETARY RECORDS

List Name	Updated	Search Radius (mile/s)	Subject site Listed?	<1/8 mile	1/8-1/4 mile	1/4-1/2 mile	1/2-1 mile	Over 1 Mile	Total
MANUF. GAS PLANTS		1.0							0
EDR Hist. Auto Stations		1.0							0
EDR Hist. Cleaners		1.0							0

TP = Target Property X - Target Property address listed on database

* - Date listed is date of activation of regulatory database by EDR for search or if list not updated, last date of EDR contact with agency. See EDR Radius report for more information.

The Lot 1 property address of 345 Los Coches Street is not listed on any database, but the 375 Los Coches Street is listed as shown below. The following sites were listed on databases prepared by EDR within about 1,250 feet of the subject property that may indicate potential ground water contaminant on adjacent sites:

Listed Site	Distance from Subject Property as Plotted by EDR	Brief Summary
JDS Uniphase Los Coches Site, 375 Los Coches Street	Subject property	RCRA-LQG, FINDS WDS SWEEPS UST, HAZNET. The EDR listing states that materials were stored bulked or transferred off site, no treatment or recovery.
Devcon Construction 555 Los Coches Street	994 feet west apparent down gradient	CA FID UST, LUST, UST, HIST UST, SWEEPS UST, HAZNET. Cleanup completed, case closed.
Shapell Indus. Of N. California	1202 feet East northeast apparent up gradient	LUST, UST, HIST UST, SWEEPS UST. LUST cleanup site, case closed.

The co-owner of the 375 Los Coches Street building stated that the building was only used for office work and some electrical testing of electronic parts and no “wet” processes or fabrication was performed in the subject building (see Sec. 7.1 below). JDS Uniphase also had used the neighboring building immediately south (off the subject property).

Most of the other reported sites are either side gradient or down gradient of the regional groundwater flow direction and at distances from the property such that in our view, groundwater contaminants and soil vapor contaminants should not affect the subject property. In our opinion, no spill incidents noted by EDR were noted which appear to have the potential to impact the subject property. Several facilities that reportedly use, generate, store or treat hazardous materials in the area were also identified in the area on the searched databases. No active landfills or transfer stations were identified within the radius searched.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

Berlogar Stevens & Associates representative Mr. Christopher Palmer performed a site reconnaissance on December 28, 2011 accompanied by Mr. Eldin Shreve, co-owner of the 375 Los Coches Street property, to view the property and immediate surrounding area. The reconnaissance was limited to a walk of the property.

6.2 General Site Setting

Lot 1, 375 Los Coches Street

The building has been vacant for about two years and was used as an office building with about 19,600 square feet of interior space. The property has asphalt paved parking areas and well maintained landscaping.

The building is divided in walled offices, open area with “cubicle” offices, restrooms two small kitchens, an electronic testing lab for electronic equipment and a receiving dock (see Photographs). The building is well maintained and a small computer system is used for lighting and security alarms. The former electronics testing area is a large room where

electronic components were bench tested; no wet processes or manufacturing was performed but an air-line for air operated equipment was present.

Clayton Environmental Consultants performed a Phase I ESA on the 375 Los Coches Street property in 1999 (see References). The ESA found that the building was used for office space and no problems were reported. An indoor air quality report was also performed and noted water stains on the interior ceiling. A recommendation for routine maintenance was made for the air conditioning equipment to prevent possible mold problems. Limited testing for suspect asbestos-materials was also performed (see Sec. 6.3 below).

Lot 2, 345 Los Coches Street

This lot is undeveloped and has perimeter sidewalks and curbs and shares a common boundary with the 375 Los Coches Street lot. The property is essentially flat and had a low grass cover at the time of our visit. Minor amounts of paper trash, broken concrete, a plastic spray bottle and garden trash were scattered on the surface. H. T. Harvey and Associates performed an ecological survey in August 2005 to search for burrowing owl habitat on this property (see Sources of Information in the appendices). The survey concluded at that time that the site was not suitable for owl habitat.

BSA did not observe any pits, ponds, standing water, foul odors or surface evidence of possible hazardous materials presence on the either property lot. Minor stains in the parking area at 375 Los Coches Street are assumed from parked vehicles.

6.3 Preliminary Asbestos Screening

A material is defined to be ACM, under California State regulations, if it contains greater than 0.1% asbestos by weight. When referring to asbestos, friable means the material, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM are more likely than non-friable ACM to release fibers when disturbed or damaged. The level of the preliminary screening performed by BSA was designed solely to identify the presence of the most obvious and common ACM, not to comply with the survey requirements of the Asbestos Hazard Emergency Response Act (AHERA) of 1986.

The Occupational Safety and Health Administration (OSHA) found the installation of friable surfacing material and thermal system insulation after December 31, 1980 unlikely. The definition of suspect ACM and presumed asbestos containing material is taken from 29 CFR Parts 1910, et al, Occupational Exposure to Asbestos; Final Rule.

Since the building on Lot 2 was developed in the 1980's, ACM is not a concern. Suspect ACM was not observed on the vacant Lot 1 during our site visit.

Clayton Environmental Consultants performed a site inspection for ACM and performed limited testing of suspect ceiling tiles for asbestos as part of their 1999 ESA. Those test results showed that asbestos was not detected (see Sources of Information in the appendices).

6.4 PCB-Containing Transformer Search

BSA observed one electrical transformer marked T608 on the subject property. BSA did not observe markings that indicated this transformer contained PCBs. It is our understanding that this equipment is maintained by PG&E.

6.5 Storage Tank Search

BSA did not observe evidence of underground storage tanks (USTs) or aboveground storage tanks (ASTs) during our site walk. An inquiry to the Santa Clara County Health Department records found no documentation for ASTs or USTs presently or historically on the subject site.

6.6 Radon Screening

Individual states have conducted a statewide screening for indoor radon to determine whether there are particular regions that are more prone to indoor radon problems than others. BSA has obtained copies of this information and the subject site lies within an area determined to have a radon Zone Level of 2. Zone 2 has a predicted average indoor screening level of less than 4 picocuries per liter (pCi/L). The USEPA action level for radon is 4 pCi/L. Radon is not considered to be a recognized environmental concern for the subject property.

6.7 Preliminary Lead-Based Paint Screening

Lead-Based Paint (LBP) as defined in the department of Housing and Urban Development (HUD) regulations, are paints that contain greater than 0.5% or 5,000 ppm of lead, based on dry weight. Section 302 of the Lead-Based Paint Poison Prevention act requires public housing projects to be inspected for LBP. The sale of paints containing more than 600 ppm of lead to consumers was banned by the Consumer Product Safety Commission (CPSC) in 1978. The CPSC ban does not apply to structural steel building components, such as columns, beams, and decking, that are painted as part of the fabrication process.

Since the building was developed in the late 1980's, LBP is not a concern. Suspect LBP materials were not observed on the vacant lot during our site visit.

6.8 Lead in Drinking Water

The subject property at 375 Los Coches Street is developed and currently connected to a municipal water supply. This property also uses recycled water for landscaping. No water quality information was available.

7.0 INTERVIEWS

7.1 Interviews with the Owner(s) and Occupants

BSA interviewed Mr. Eldin Shreve a co-owner of the 375 Los Coches Street property for about the last 12 years. Mr. Shreve stated that during their ownership the building had been used for office space and a small electronic parts testing laboratory. JDS Uniphase had occupied the subject building and neighboring buildings. Mr. Shreve said that the building had not been used for any “wet” processes or fabrication and no hazardous materials use or storage occurred on the property. The building has been vacant for about the last two years.

BSA did not interview the current property owner for the vacant Lot 1.

7.2 Interviews with the Local Government Officials

BSA contacted the desk staff at the City of Milpitas regarding the file searches for the property APN for building permits and used their in-office electronic system to retrieve the attached building permits. There were no records for the property APN regarding underground storage tanks or any contaminant or hazardous materials problems according to the search performed by EDR. BSA also used web-based search software for the County of Santa Clara and Regional Water Quality Control Board (RWQCB) GeoTracker.

8.0 FINDINGS

8.1 Findings

The subject property was agricultural land until about the late 1970s. A building was constructed in 1987 on Lot 2 at 375 Los Coches Street according to building permit information. The adjacent Lot 1 at 345 Los Coches Street has not been developed. A search of regulatory agencies shows that there are no reports or files for contaminant or hazardous materials or underground storage tanks for the property.

9.0 DATA GAPS AND DEVIATIONS

9.1 Data Gaps

In our opinion, there are no data gaps in this study. A review of topographic maps (1899 through 1980), Sanborn Maps and aerial photographs (1939 through 2006) and City of Milpitas Building Permits show that Lot 2 of the property was developed around 1987. The available regulatory records show that there are no files for the property and a co-owner of 375 Los Coches Street stated that there had not been any hazardous materials use or contaminant problems with the property. Evidence of possible hazardous materials use or

disposal on the vacant Lot 1 was not observed on the field walk. In our opinion, there is sufficient site history and there are no data gaps in this study.

9.2 Deviations

The ASTM standard practice guidance states that historic records should be reviewed for a Phase One Environmental Site Assessment, including interviews. BSA did not interview the former owner or current owner of the vacant Lot 1, or neighbors of the subject property. However, the property history is sufficiently complete from other sources including a previous interview with the property owner. Given the available site history, it is our opinion that this is a minor deviation from the guidance and does not affect the conclusions.

10.0 CONCLUSIONS

10.1 Conclusions

Berlogar Stevens & Associates performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E 1527-05 for the Fremont property site at Lots 1 and 2 at 345 and 375 Los Coches Street in Milpitas, California. Any exceptions to, or deletions from this practice, are described in this report. The subject property is currently one undeveloped lot and one developed lot with a one story office building.

The building at Lot 2, 375 Los Coches Street appears to have been completed in 1987 according to building permit information, and has been used for office space. This building has not been used for "wet" processes or manufacturing. The adjacent Lot 1 has not been developed and minor amounts of paper trash; fragments of broken concrete and garden trash litter the surface.

BSA did not find evidence that current use of the property or activity at neighboring properties that would indicate the likelihood of environmental impairment to the subject property. In addition, BSA did not observe visual evidence of hazardous-material contamination, indications of improper hazardous material storage or disposal, or identify significant concerns relating to PCBs, ASTs, USTs, or Radon at the subject property. This assessment has not revealed evidence of recognized environmental conditions in connection with the property.

BSA does not recommend further environmental testing at this time. BSA does recommend the following:

- Limited testing of ACBM was performed in 1999 at the 375 Los Coches Street building and asbestos was not detected. If future building renovation or demolition is planned, a qualified contractor should test for ACBM if suspect materials are encountered, and properly manage and dispose of the ACBM if needed.

JOB NUMBER: 3390.900 DATE: 1-5-12 BY: CC



SCALE: 1" = 2000'

VICINITY MAP
MILPITAS RESIDENTIAL LOTS 1 AND 2
SOUTH MILPITAS BOULEVARD AND LOS COCHES STREET
MILPITAS, CALIFORNIA
FOR
DRG BUILDERS, INC.

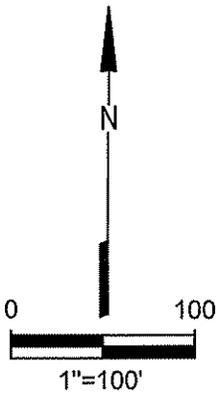
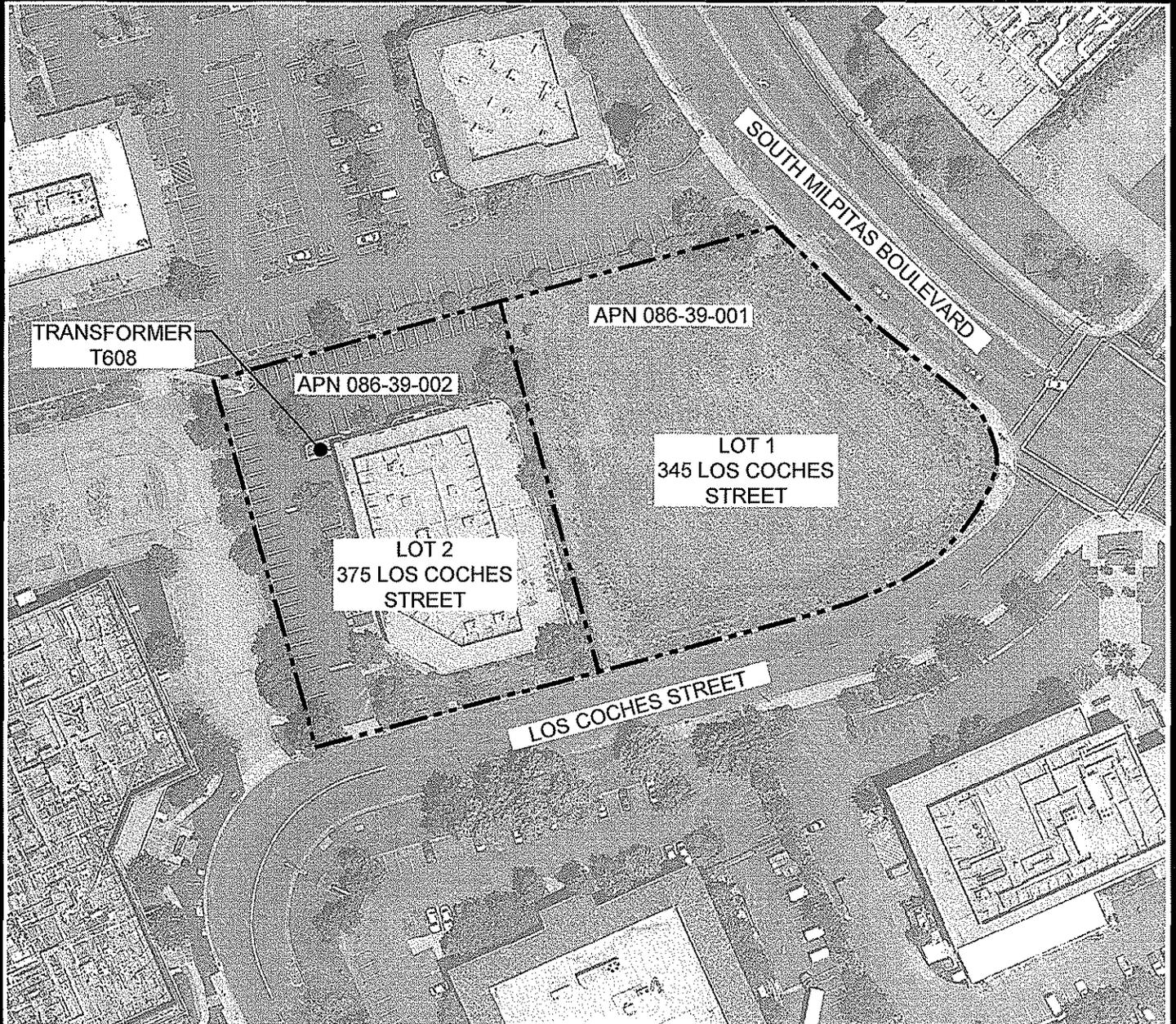
BASE: PORTION OF U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLE, MILPITAS, CALIFORNIA, AT A SCALE OF 1:24,000.

CHECKED BY:

DRAWN BY: CC

DATE: 1-5-12

JOB NUMBER: 3390.900



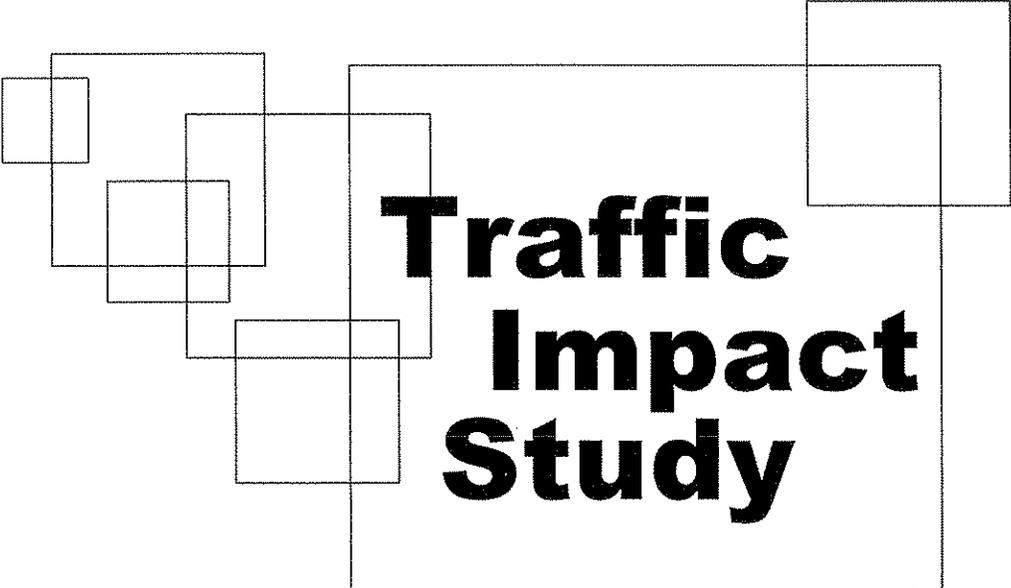
EXPLANATION

----- PROPERTY LINE

SITE PLAN
MILPITAS RESIDENTIAL
LOTS 1 AND 2
 SOUTH MILPITAS BOULEVARD
 AND LOS COCHES STREET
 MILPITAS, CALIFORNIA
 FOR
 DRG BUILDERS, INC.

Berlogar Stevens & Associates
 SOIL ENGINEERS * ENGINEERING GEOLOGISTS

BASE: GOOGLE EARTH IMAGE



Traffic Impact Study

Abrams Associates
Transportation • Traffic • Engineering • Planning

375 Los Coches Residential Project

City of Milpitas

Prepared for:

DRG Builders, Inc.
3496 Buskirk Ave, Ste 104
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Attn: Doyle Heaton

Prepared by:

Abrams Associates
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June, 2012

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375 Los Coches Street Residential Project

City of Milpitas

TRANSPORTATION AND CIRCULATION

1) INTRODUCTION

The proposed project would include 33 single family dwellings and would be located on the northwest corner of the intersection of South Milpitas Blvd with Los Coches Street. All access to the site will be from a main entrance onto Los Coches Street with a separate emergency vehicle access connection to South Milpitas Blvd. The site will include a two car garage for each unit along with an additional 9 on-street parking spaces within the site. **Figure 1** shows the location of the project and the surrounding roadway network. **Figure 2** shows the proposed site plan for the project.

This report describes the existing traffic and circulation system, parking conditions, and pedestrian and transit conditions in the vicinity of the proposed project and provides an analysis of the potential impacts of the project. This transportation impact study has been conducted consistent with the requirements and methodologies of the City of Milpitas, the Valley Transportation Authority (VTA) and the applicable provisions of CEQA.

With 33 residential units it is estimated that the proposed apartment project could generate up to 39 trips during the critical PM peak hour. Based on the project's trip generation and the potential for traffic impacts a list of project study intersections was prepared in coordination with City staff. Beyond these intersections, the project would not be expected to result in any noticeable changes to traffic conditions.

2) SETTING

This section of the report describes the roadways, traffic conditions and other existing transportation characteristics in the vicinity of the project. The primary basis of the analysis is the peak hour level of service for the key intersections. The hours identified as the "peak" hours are generally between 8:00 a.m. and 9:00 a.m. and 5:00 p.m. and 6:00 p.m. for all of the transportation facilities described. Throughout this report, these peak hours will be identified as the AM and PM peak hours, respectively.

Project Study Intersections

Figure 1 shows the location of the proposed project and the adjacent street network in this section of Milpitas. All traffic from the project will enter onto Los Coches Street. There are six (6) study intersections that have been included in the project. Please note that all of the project study intersections are currently signalized.

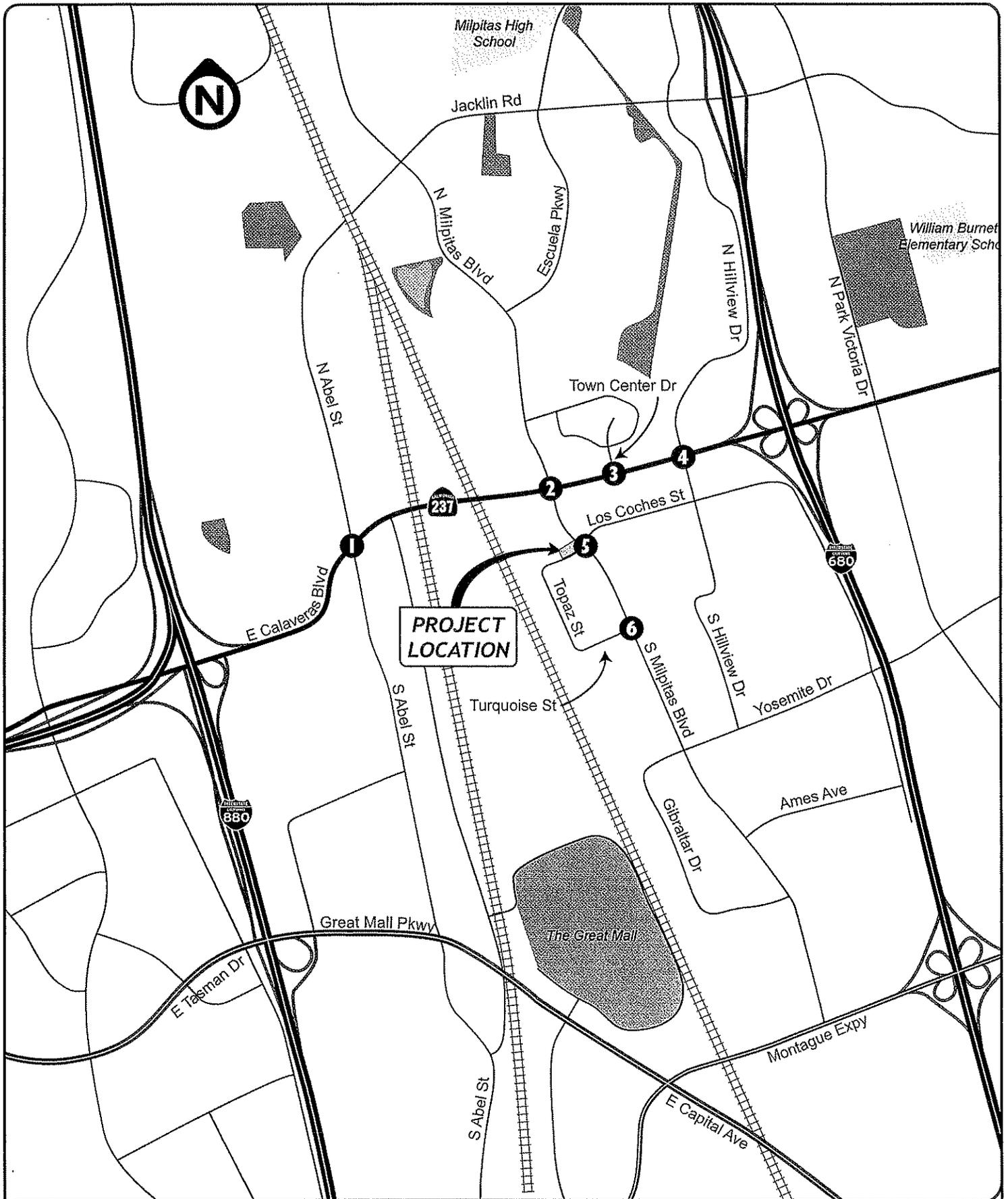


FIGURE 1 | PROJECT LOCATION
TRAFFIC IMPACT STUDY
375 Los Coches Residential Project
 City of Milpitas

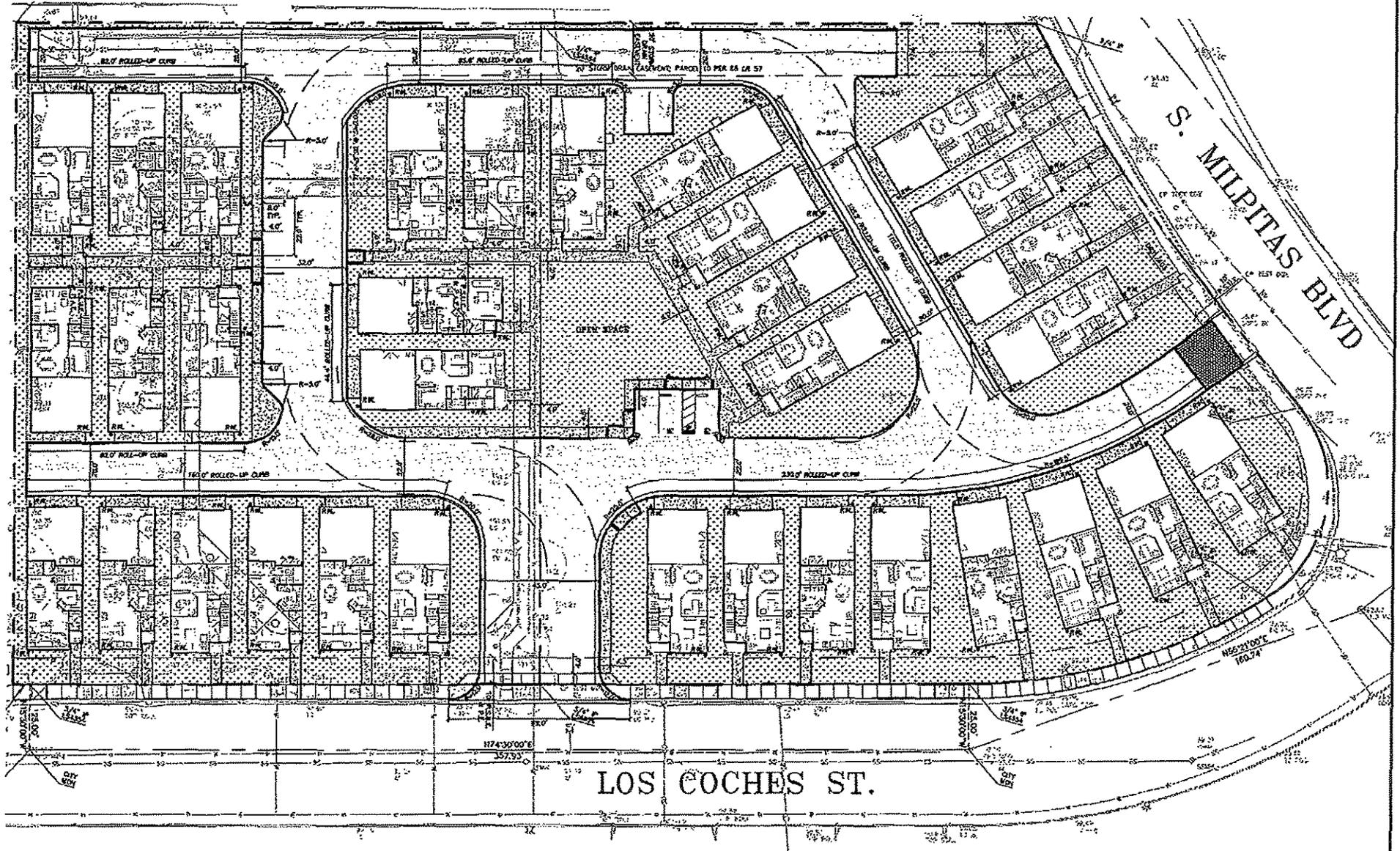


FIGURE 2 | SITE PLAN
TRAFFIC IMPACT STUDY
375 Los Coches Residential Project
 City of Milpitas

The following is a list of the project study intersections:

1. Calaveras Boulevard (State Route (SR) 237) / Abel Street
2. Calaveras Boulevard (State Route (SR) 237) / Milpitas Boulevard
3. Calaveras Boulevard (State Route (SR) 237) / Town Center Drive
4. Calaveras Boulevard (State Route (SR) 237) / Hillview Drive
5. Milpitas Boulevard / Los Coches Street
6. Milpitas Boulevard / Turquoise Street

Traffic Analysis Scenarios

The study intersections were evaluated for the following scenarios:

- Scenario 1: Existing Conditions – Level of Service (LOS) based on existing peak hour volumes and existing intersection configurations. The volumes in this scenario are based on traffic counts taken in June, 2012 when schools were still in session.
- Scenario 2: Baseline Conditions (Year 2014) – Existing traffic plus background traffic growth plus anticipated traffic from any approved developments that would substantially affect the volumes at the project study intersections.
- Scenario 3: Baseline Conditions Plus Project – Baseline conditions peak-hour volumes plus trips from the proposed project.

Existing Roadway Network

The project location and the surrounding roadway network are illustrated in **Figure 1**. The primary roadways that would be affected by the project include:

- **State Route 237** – SR 237 is an east-west roadway that includes two different facilities in the project study area. To the west SR 237 is a six-lane freeway extending from I-880 west towards US 101. In the vicinity of the proposed project SR 237 is known as Calaveras Boulevard and is a four- to eight-lane arterial roadway extending between I-880 and I-680 (with an elevated section over the Union Pacific Railroad tracks). Calaveras Boulevard serves as a major commute route with heavy directional travel during the peak hours (westbound in the morning and eastbound in the afternoon).
- **Milpitas Boulevard** – Milpitas Boulevard is a north-south, four-lane arterial extending from the Milpitas City limit line (also the Santa Clara-Alameda County limit line) south to the Montague Expressway. Milpitas Boulevard is identified as Warm Springs Boulevard north of the City/County limit.
- **Abel Street** – Abel Street is a north-south, four-lane roadway parallel to Main Street extending from Milpitas Boulevard (north of Calaveras Boulevard) south to Main Street (south of Great Mall Parkway). The section of Abel Street between Corning and Curtis Avenues includes four travel lanes plus a two-way left-turn

lane.

- **Town Center Drive** – Town Center Drive is a two lane roadway extending north from east Calaveras Boulevard with additional turn lanes at key intersections and no parking permitted. Town Center Drive provides access to the City of Milpitas Town Center as well as the Town Center Shopping Center.
- **Hillview Drive** – Hillview Drive is a north-south collector roadway which extends from Yosemite Avenue on the south to terminate in the residential area north of Jacklin Road. For most of its length Hillview Drive one lane in each direction with parking permitted.
- **Los Coches Street, Topaz Street, and Turquoise Drive** – Los Coches Street, Topaz Street, and Turquoise Drive are all local roadways with one lane in each direction and parking permitted. These roadways provide direct access to residential and commercial properties in the area and provide connections to major arterials in the area such as Milpitas Boulevard and Calaveras Boulevard.

Intersection Analysis Methodology

Existing operational conditions at the six (6) study intersections have been evaluated using Synchro Software to implement the 2000 *Highway Capacity Manual (HCM)* Level of Service (LOS) methodology.¹ Level of service is an expression, in the form of a scale, of the relationship between the capacity of an intersection (or roadway segment) to accommodate the volume of traffic moving through it at any given time. The level of service scale describes traffic flow with six ratings ranging from A to F, with "A" indicating relatively free flow of traffic and "F" indicating stop-and-go traffic characterized by traffic jams.

As the amount of traffic moving through a given intersection or roadway segment increases, the traffic flow conditions that motorists experience rapidly deteriorate as the capacity of the intersection or roadway segment is reached. Under such conditions, there is general instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays that lead to traffic congestion. This near-capacity situation is labeled level of service (LOS) E. Beyond LOS E, the intersection or roadway segment capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it.

For signalized intersections, the *HCM* methodology determines the capacity of each lane group approaching the intersection. The LOS is then based on average control delay (in seconds per vehicle) for the various movements within the intersection. A combined weighted average control delay and LOS are presented for the intersection. **Table 1** summarizes the relationship between LOS and average control delay at signalized intersections.

Existing Intersection Capacity Conditions

The existing intersection geometry and traffic counts at the "study" intersections for weekday AM and PM peak hours are presented in the *Traffic Analysis Appendix*. AM and PM peak hour

¹ *Highway Capacity Manual*, Transportation Research Board, Washington D.C., 2000

turning movement counts were conducted at all of the project study intersections in 2009 and 2010 at times when local schools were in session.

TABLE 1
SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

<u>Level of Service</u>	<u>Description of Operations</u>	<u>Average Delay (sec/veh)</u>
A	Insignificant Delays: No approach phase is fully used and no vehicle waits longer than one red indication.	≤ 10
B	Minimal Delays: An occasional approach phase is fully used. Drivers begin to feel restricted.	> 10 to 20
C	Acceptable Delays: Major approach phase may become fully used. Most drivers feel somewhat restricted.	> 20 to 35
D	Tolerable Delays: Drivers may wait through no more than one red indication. Queues may develop but dissipate rapidly without excessive delays.	> 35 to 55
E	Significant Delays: Volumes approaching capacity. Vehicles may wait through several signal cycles and long vehicle queues from upstream.	> 55 to 80
F	Excessive Delays: Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80

SOURCE: *Highway Capacity Manual*, Transportation Research Board, 2000.

¹As part of the *HCM methodology*, adjustments are typically made for various factors that reduce the ability of the streets to accommodate vehicles (such as the downtown nature of the area, number of pedestrians, vehicle types, lane widths, grades, on-street parking and queues). These adjustments are performed to ensure that the LOS analysis results reflect the operating conditions that are observed in the field.

Figure 3 presents the existing lane configurations at the project study intersections and **Figure 4** presents the existing traffic volumes. **Table 3** summarizes the associated LOS computation results for the existing weekday AM and PM peak hour conditions (the corresponding LOS analysis calculation sheets are presented in the *Traffic Analysis Appendix*).

As shown in **Table 3**, all of the signalized study intersections currently have acceptable conditions according to City and County Standard during the weekday AM and PM peak hours. As specified later in the report, the applicable standard require LOS D be maintained at local intersections and LOS E be maintained on Congestion Management Plan (CMP) routes such as Calaveras Boulevard.

Planned Roadway Improvements

The VTA and the City of Milpitas are participating in ongoing planning for long term improvements to Calaveras Boulevard which would likely involve the construction of additional through lanes in each direction. Beyond this project there are no significant planned roadway

improvements at any of the project study intersections and no planned roadway network changes that would significantly change travel patterns in the area.

**TABLE 2
EXISTING INTERSECTION LEVEL OF SERVICE CONDITIONS-HCM METHODOLOGY**

	INTERSECTION	CONTROL	PEAK HOUR	EXISTING	
				DELAY (sec/veh)	LOS
1	W CALAVERAS BLVD & ABEL ST	Traffic Signal	AM	35.4	D
			PM	59.7	E
2	E CALAVERAS BLVD & MILPITAS BLVD	Traffic Signal	AM	53.7	D
			PM	49.0	D
3	E CALAVERAS BLVD & TOWN CENTER DR	Traffic Signal	AM	5.1	A
			PM	6.4	A
4	E CALAVERAS BLVD & HILLVIEW DR	Traffic Signal	AM	27.1	C
			PM	34.6	C
5	S MILPITAS BLVD & LOS COCHES ST	Traffic Signal	AM	11.9	B
			PM	15.5	B
6	S MILPITAS BLVD & TURQUOISE ST	Traffic Signal	AM	3.2	A
			PM	4.8	A

SOURCE: Abrams Associates, 2012

NOTES: Intersection Delay is presented in terms of seconds per vehicle.

Pedestrian and Bicycle Facilities

Pedestrian and bicycle activity is relatively light in the immediate vicinity of the project site. Sidewalks are provided in most areas and it should be noted that the sidewalks would be completed along the frontage of the site as part of the proposed project. Bicycle lanes are provided on Milpitas Boulevard in the vicinity of the project site.

Transit Service

The Santa Clara Valley Transportation Authority - The Santa Clara Valley Transportation Authority (VTA) operates bus and light rail service in Santa Clara County. The Montague light rail station is located on the southeast side of the study area and is elevated above Capitol Avenue. VTA bus routes 46, 47, 66, 70, 71, 77, 104, 180, and 321, as well as AC Transit route 217, provide bus service within the project study area. The Altamont Commuter Express (ACE) Violet Shuttle (Route 831) also provides service within the project study area.

Bay Area Rapid Transit (BART) – BART is a rapid transit system which provides regional transportation connections to much of the Bay Area. It runs from the North Bay Area in Richmond to the South Bay Area in Fremont. In the east-west direction it runs from Pittsburg to the San Francisco Airport and Milbrae with several connections in Oakland. VTA bus service provides a connection to the Fremont BART station which provides regional access to San Francisco with several stops in Oakland where connections may be made to other lines.

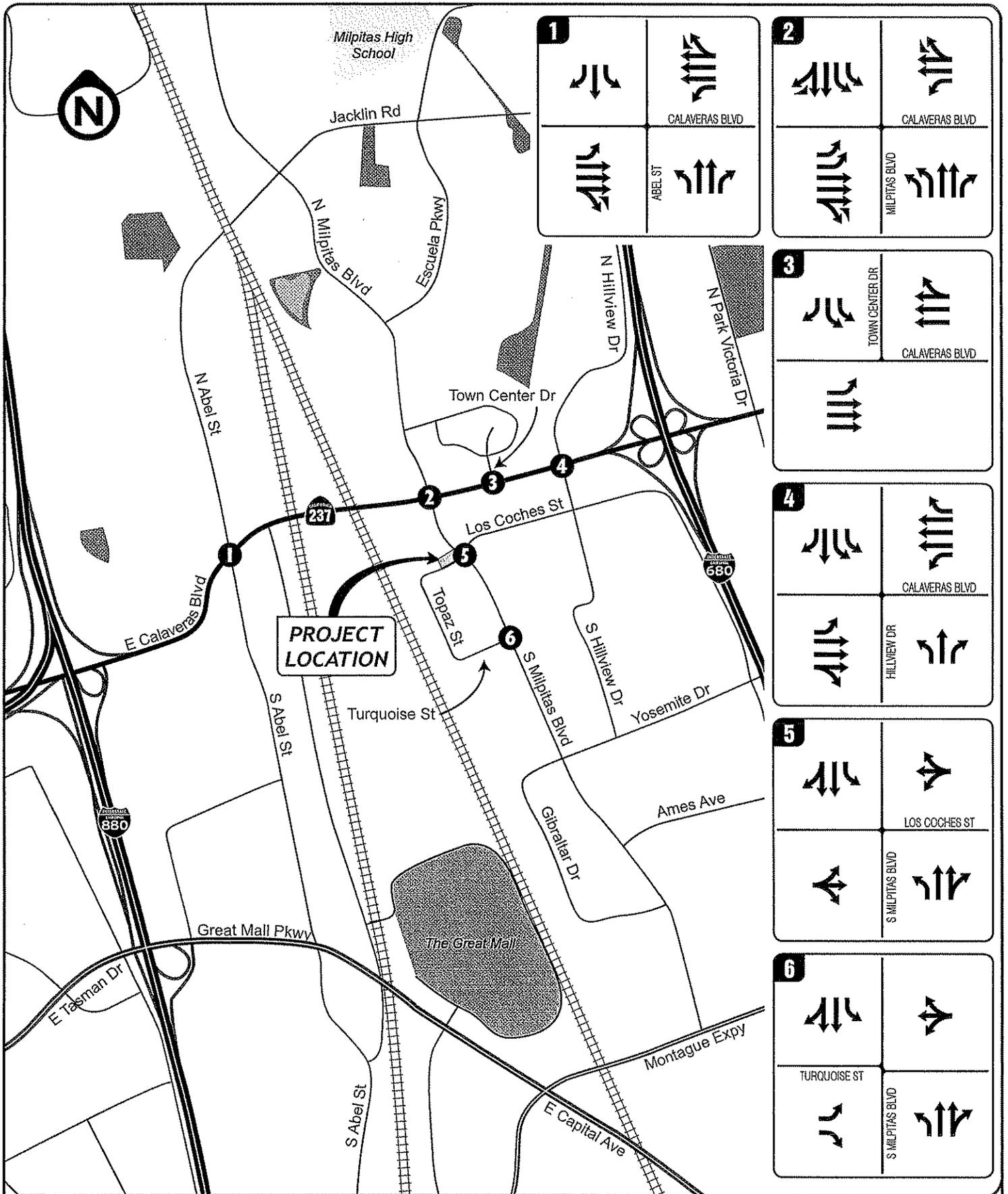


FIGURE 3 | EXISTING LANE CONFIGURATION
TRAFFIC IMPACT STUDY
375 Los Coches Residential Project
 City of Milpitas

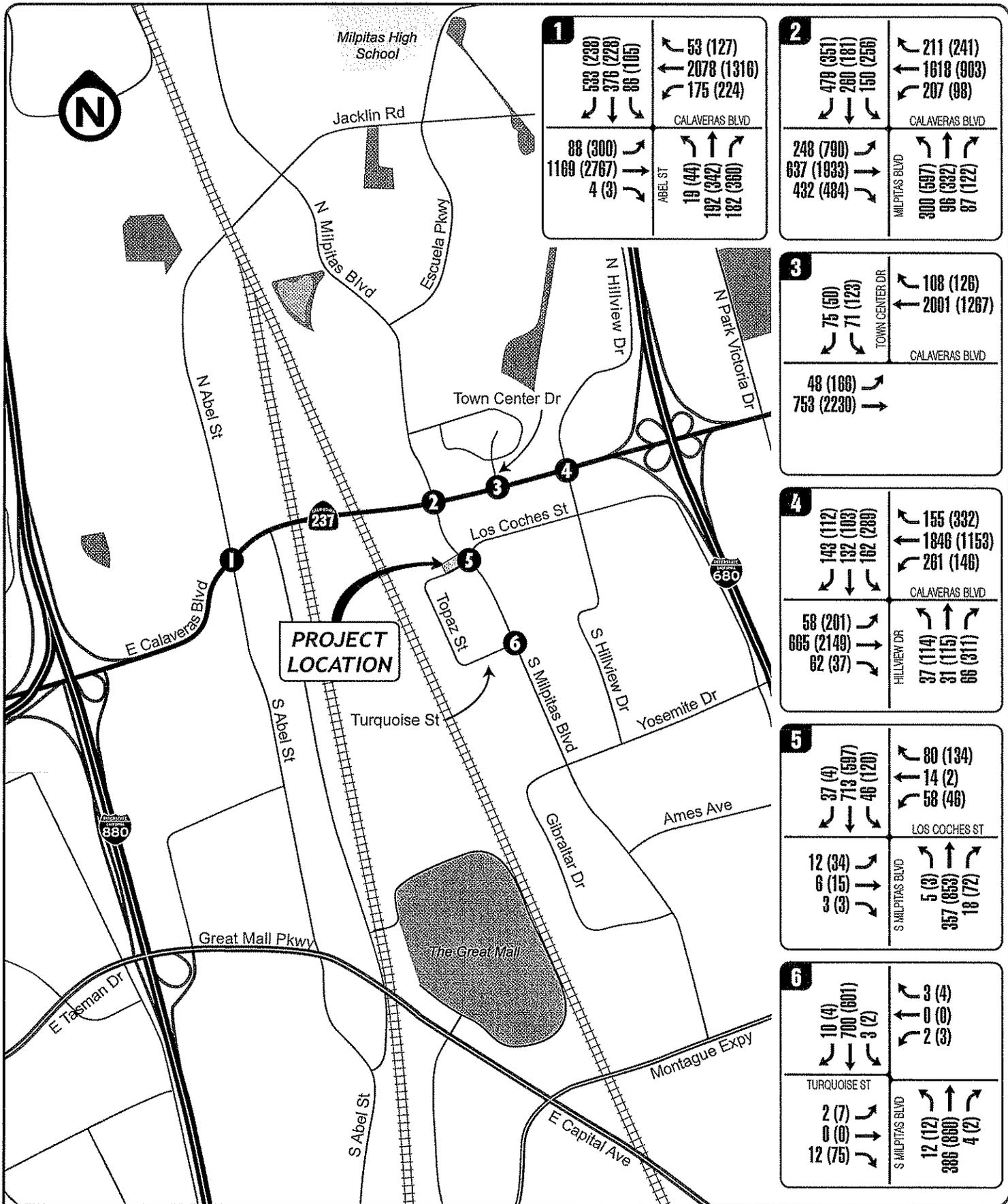


FIGURE 4 | EXISTING AM(PM) PEAK HOUR VOLUMES
TRAFFIC IMPACT STUDY
375 Los Coches Residential Project
 City of Milpitas

3) REGULATORY FRAMEWORK

Significance Criteria

Signalized Intersections - Project-related operational impacts on signalized intersections are considered significant if project-related traffic causes the Level of Service (LOS) rating to deteriorate from LOS D or better to LOS E or F on any City of Milpitas Roadways. The only exception are Congestion Management Plan (CMP) roadways such as Calaveras Boulevard where LOS E is permissible.

According to CEQA guidelines, a project would have a significant impact if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit.
- Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards, and travel demand measures, or other standards established by a county congestion management agency for designated roads or highways.
- Result in inadequate emergency vehicle access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.
- Result in a projected future over-capacity freeway condition where current long-range planning studies show an under-capacity condition.
- Result in an internal circulation system design that does not meet City standards.

4) IMPACTS AND MITIGATION MEASURES

Project Trip Generation

The proposed project will consist of 33 single family detached homes. The project would be constructed on a lot that is currently vacant. The trip generation calculations are shown in **Table 3**. They are based on the trip generation rates for Single Family Detached Housing (Land Use Code 210) from ITE's Trip Generation (8th Edition). Please note that the fitted curve equations provided by ITE were used to develop the project trip rates. The resulting rates were slightly higher than the weighted average rates. The resulting trip rates used in the analysis were as follows: the AM Peak hour rate was 1.0 trips per unit, the PM peak hour rate was 1.17 trips per unit, and daily rate was 11.4 trips per unit.

Table 3
Trip Generation Calculations

Land Use	ITE Code	Size	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Single Family Detached Housing	210	33 units	375	8	25	33	25	14	39

The trips from the project reflect all vehicle trips that would be counted at the project driveway on Los Coches Drive, both inbound and outbound. Since this project would be all residential there were no adjustments applied to account for pass-by or internal trips. The project is forecast to generate a total of 33 new vehicle trips during the AM peak hour and about 39 new trips during the PM peak hour.

The site traffic is all assumed to use the main project entrance driveway on Los Coches Drive. For purposes of determining the reasonable worst-case impacts of traffic on the surrounding street network from a proposed project, the trips generated by this proposed development are estimated for the peak commute hours of 8:00 to 9:00 a.m. and 5:00 to 6:00 p.m. This represents the peak hours of "adjacent street traffic" during the time periods when the uses generally contribute to the greatest amount of congestion.

Project Trip Distribution

The trip distribution assumptions have been based on the project's proximity to freeway interchanges, the existing directional split at other local driveways and intersections, and the overall land use patterns in the area. **Figure 5** presents the trip distribution percentages used in the analysis and the AM and PM peak hour trips generated by the proposed project at each study area intersection.

Existing Plus Project Intersection Capacity Conditions

The existing plus proposed project traffic forecasts were developed by adding project-related traffic to the existing traffic volumes. **Figure 6** presents the Existing Plus Project traffic volumes that were used in the analysis. **Table 5** also summarizes the LOS results for the Baseline Plus Project weekday AM and PM peak hour conditions (the corresponding LOS analysis calculation sheets are presented in the *Traffic Analysis Appendix*).

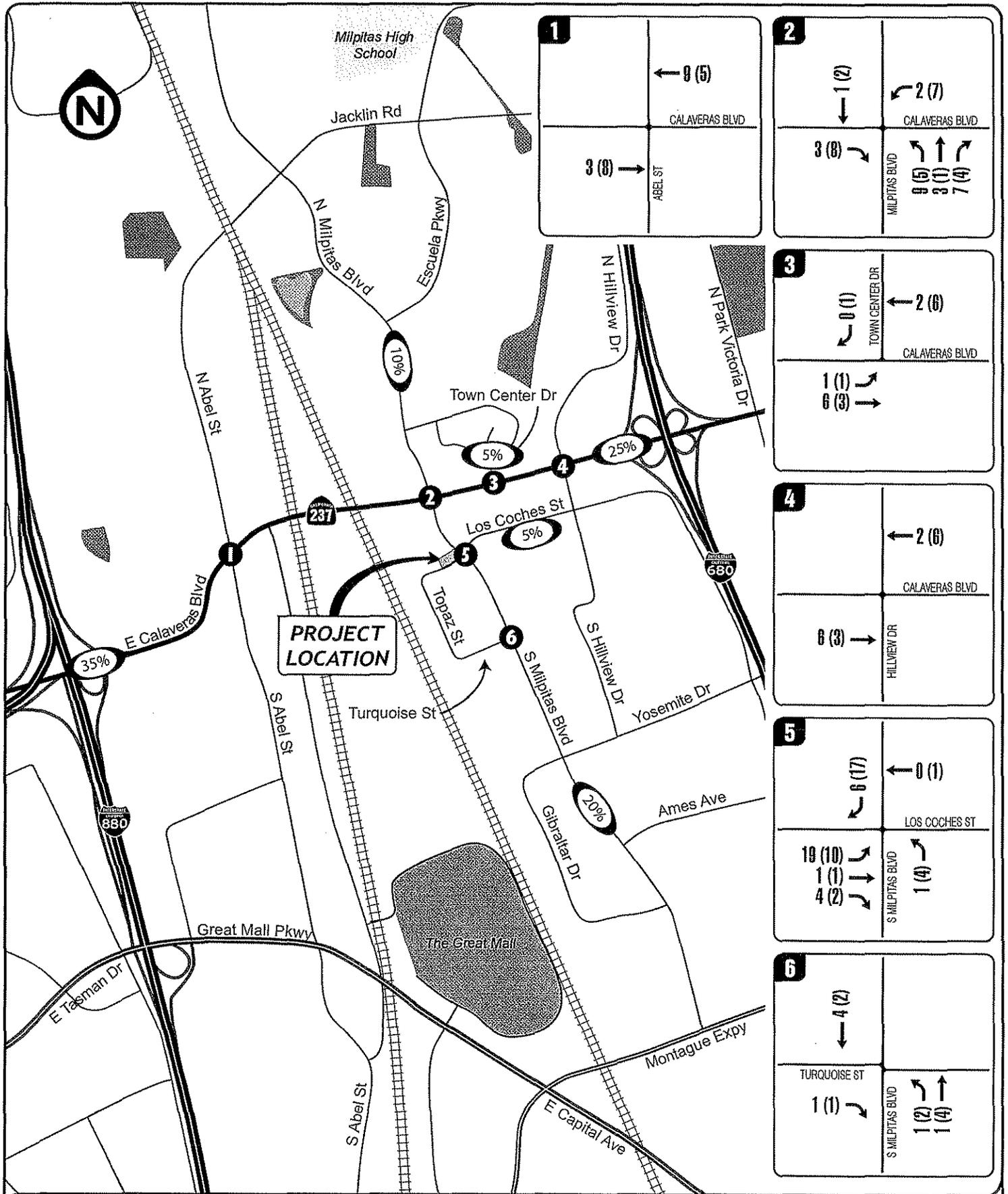


FIGURE 5 | PROJECT AM(PM) PEAK HOUR TRIPS & DISTRIBUTION
TRAFFIC IMPACT STUDY

375 Los Coches Residential Project
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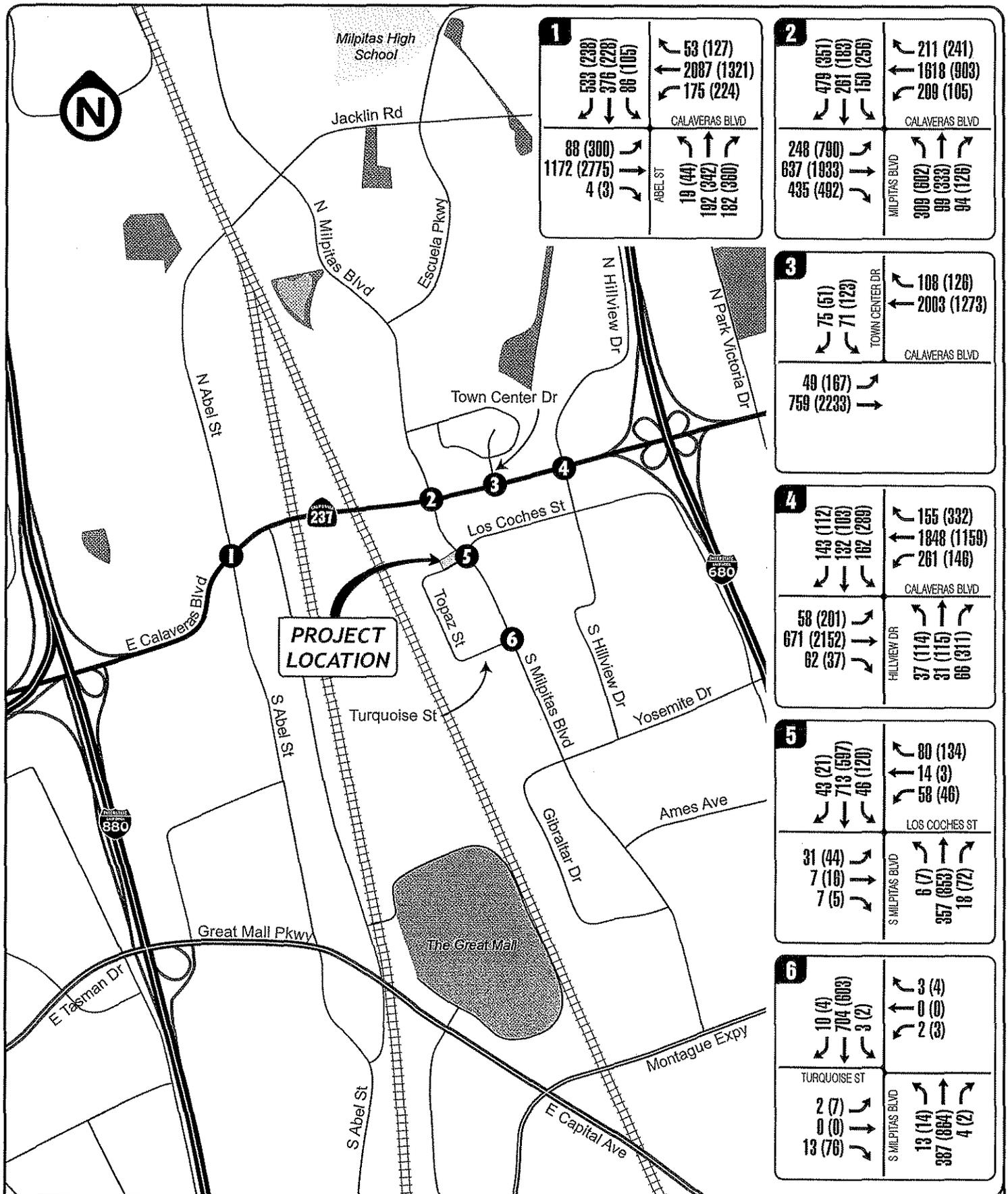


FIGURE 6 | EXISTING PLUS PROJECT AM(PM) PEAK HOUR VOLUMES
 TRAFFIC IMPACT STUDY
375 Los Coches Residential Project
 City of Milpitas

As shown in Table 5, under Existing Plus Project conditions all of the project study intersections would continue to have similar LOS results as Existing Conditions. All of the study intersections would have acceptable conditions (based on applicable standards) during the AM and PM peak hours.

**TABLE 5
EXISTING INTERSECTION LEVEL OF SERVICE CONDITIONS-HCM METHODOLOGY**

	INTERSECTION	CONTROL	PEAK HOUR	EXISTING		EXISTING PLUS PROJECT	
				DELAY (sec/veh)	LOS	DELAY (sec/veh)	LOS
1	W CALAVERAS BLVD & ABEL ST	Traffic Signal	AM	35.4	D	35.5	D
			PM	59.7	E	60.1	E
2	E CALAVERAS BLVD & MILPITAS BLVD	Traffic Signal	AM	53.7	D	54.4	D
			PM	49.0	D	49.4	D
3	E CALAVERAS BLVD & TOWN CENTER DR	Traffic Signal	AM	5.1	A	5.2	A
			PM	6.4	A	6.4	A
4	E CALAVERAS BLVD & HILLVIEW DR	Traffic Signal	AM	27.1	C	27.1	C
			PM	34.6	C	34.7	C
5	S MILPITAS BLVD & LOS COCHES ST	Traffic Signal	AM	11.9	B	12.3	B
			PM	15.5	B	15.7	B
6	S MILPITAS BLVD & TURQUOISE ST	Traffic Signal	AM	3.2	A	3.3	A
			PM	4.8	A	4.9	A

SOURCE: Abrams Associates, 2012

NOTES: Intersection Delay is presented in terms of seconds per vehicle

Baseline Intersection Capacity Conditions

The Baseline scenario evaluates the existing conditions with the addition of traffic from reasonably foreseeable projects in the area. In addition, a general short-term growth in traffic was assumed based on the assumption that the project completion date would be 2014. This scenario includes all reasonably foreseeable projects that would significantly affect volumes in the project study area.

Approved projects in the area include 732 approved apartment units at 1200 Piper Drive (Citation), 303 approved apartment units at Milpitas Boulevard and the Montague Expressway (Milpitas Station), 80 approved single family dwellings on Sinclair Road (Sinclair Renaissance), 83 approved single family dwellings at 905-980 Los Coches Street (Robson Single Family), 375 approved apartment units and 148,805 square feet of approved commercial space at 600 Barber Lane (Landmark Tower), 366 approved apartment units at 1102 Abel Street (Centria West), and 204 approved apartment units at 1201 South Main Street (SD11-0011). To account for the baseline growth for this analysis (and a general background traffic increase to 2014) a 6 percent increase was applied to the existing traffic volumes. **Figure 7** presents the baseline volumes at the project study intersections.

Table 6 summarizes the associated LOS computation results for the Baseline and Baseline Plus Project weekday AM and PM peak hour conditions (the corresponding LOS analysis calculation sheets are presented in the *Traffic Analysis Appendix*). As shown in **Table 6**, during both peak hours under Baseline conditions all intersections would continue to have acceptable conditions (based on applicable standards) during the AM and PM peak hours.

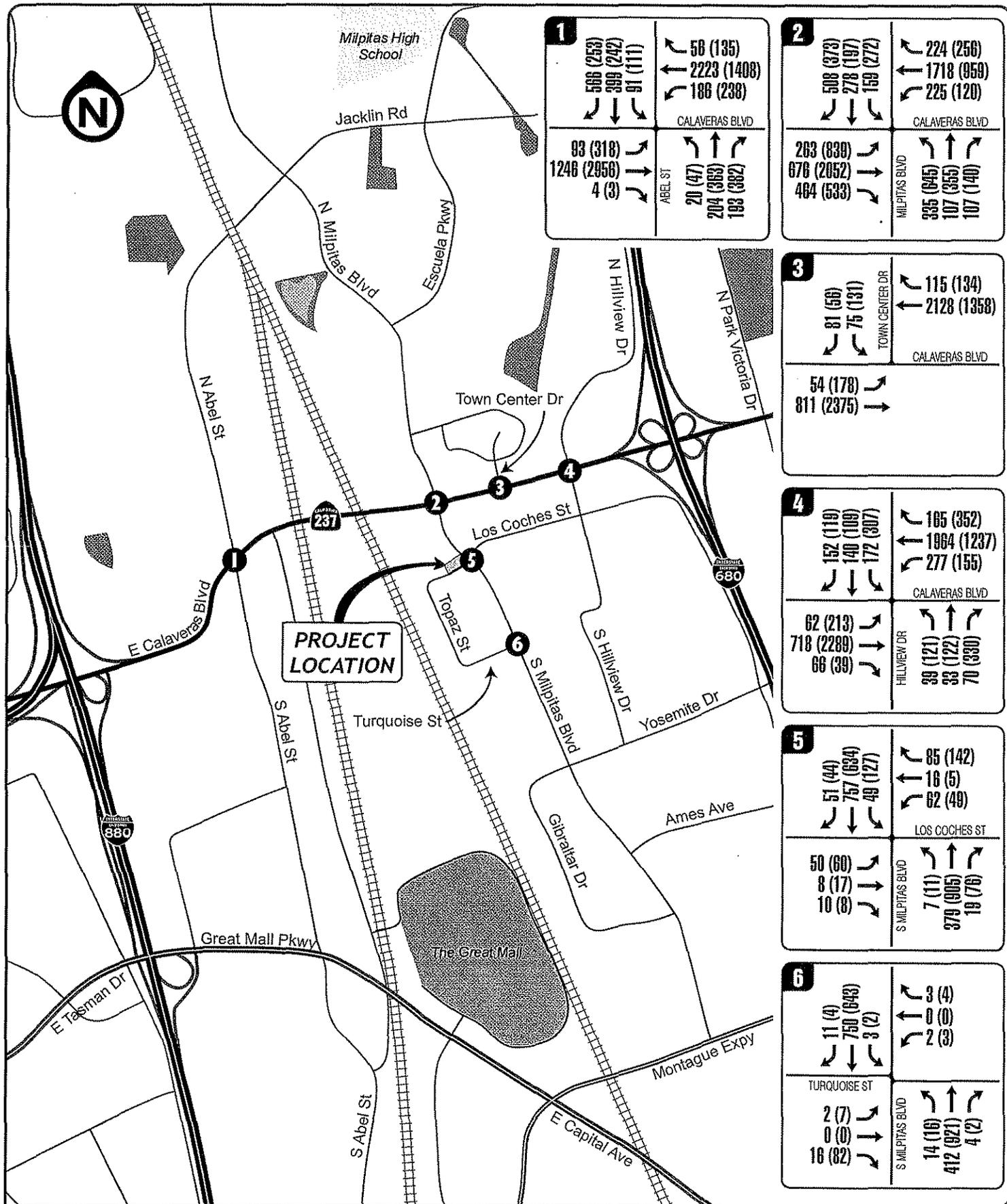


FIGURE 7 | BACKGROUND AM(PM) PEAK HOUR VOLUMES
TRAFFIC IMPACT STUDY

375 Los Coches Residential Project
City of Milpitas

Baseline Plus Project Intersection Capacity Conditions

The Baseline plus proposed project traffic forecasts were developed by adding project-related traffic to the Baseline traffic volumes. **Figure 8** presents the Baseline Plus Project traffic volumes that were used in the analysis. **Table 6** also summarizes the LOS results for the Baseline Plus Project weekday AM and PM peak hour conditions (the corresponding LOS analysis calculation sheets are presented in the *Traffic Analysis Appendix*). As shown in Table 6, under Baseline Plus Project conditions all of the project study intersections would continue to have similar LOS results as the Baseline Conditions. All of the study intersections would have acceptable conditions (according to applicable standards) during the AM and PM peak.

**TABLE 6
BASELINE INTERSECTION LEVEL OF SERVICE CONDITIONS-HCM METHODOLOGY**

INTERSECTION	CONTROL	PEAK HOUR	BACKGROUND		BACKGROUND PLUS PROJECT	
			DELAY (sec/veh)	LOS	DELAY (sec/veh)	LOS
1 W CALAVERAS BLVD & ABEL ST	Traffic Signal	AM	53.5	D	53.9	D
		PM	71.4	E	71.9	E
2 E CALAVERAS BLVD & MILPITAS BLVD	Traffic Signal	AM	76.2	E	77.0	E
		PM	57.8	E	58.6	E
3 E CALAVERAS BLVD & TOWN CENTER DR	Traffic Signal	AM	6.1	A	6.1	A
		PM	6.9	A	7.0	A
4 E CALAVERAS BLVD & HILLVIEW DR	Traffic Signal	AM	26.7	C	26.8	C
		PM	38.3	D	38.4	D
5 S MILPITAS BLVD & LOS COCHES ST	Traffic Signal	AM	12.4	B	12.9	B
		PM	15.9	B	16.4	B
6 S MILPITAS BLVD & TURQUOISE ST	Traffic Signal	AM	2.8	A	2.9	A
		PM	4.9	A	5.0	A

SOURCE: Abrams Associates, 2012

NOTES: Intersection Delay is presented in terms of seconds per vehicle

Internal Circulation and Access

No internal site circulation or access issues have been identified that would cause a traffic safety problem or any unusual traffic congestion or delay. It should be noted that the volumes on the internal roadways would be light enough so that no significant conflicts would be expected with through traffic and vehicles backing out of the garages and/or parking spaces within the project. At the main project entrance on Los Coches Street the project's side street approach should be controlled with a stop sign.

Parking

The City's Parking Ordinance requires 2.0 spaces per unit for residential unit with 3 or less bedrooms (the project would not include any units with 4 or more bedrooms) plus another 20% of the total required for guest parking (7 spaces). The project is currently proposing to meet the City's parking requirement by two garage parking spaces per unit and 9 guest parking. Based on our review of the proposed parking plan and a qualitative review of on-street parking occupancy levels in the area there should be no significant impacts to the surrounding properties.

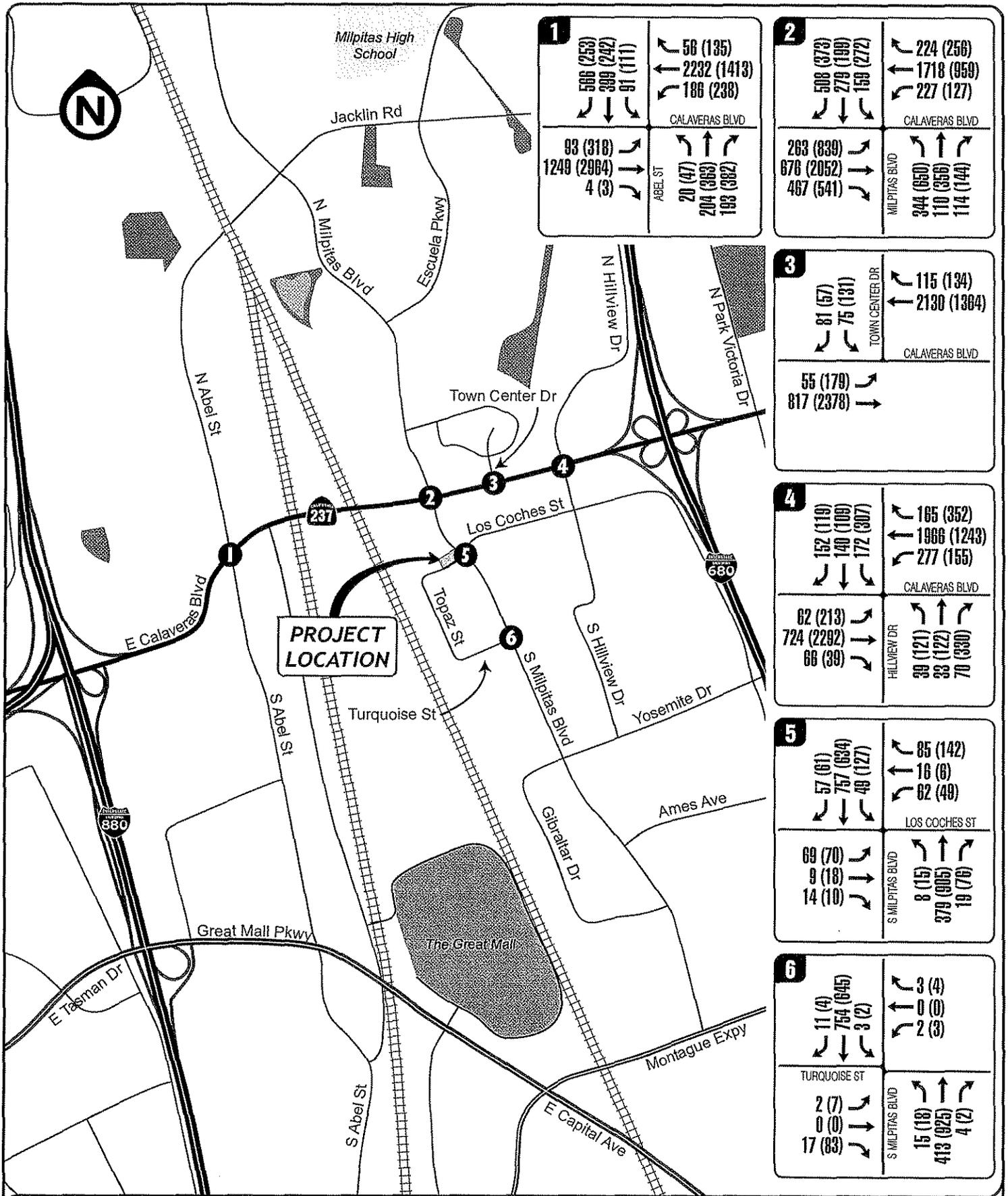


FIGURE 8 | BACKGROUND PLUS PROJECT AM(PM) PEAK HOUR VOLUMES
 TRAFFIC IMPACT STUDY
375 Los Coches Residential Project
 City of Milpitas

5) Conclusions

Based on this analysis the proposed project would not cause any intersections or roadways in the area to exceed established standards and would not create any safety problems. The highest peak hour trip generation at the project driveways would be about 39 vehicles during the PM peak hour. The addition of the recommended stop sign at the project exit would ensure there would continue to be safe and efficient traffic operations in the area. The project would not result in any significant traffic capacity or safety impacts and no off-site traffic mitigations would be required.

Existing Plus Project Conditions

Based on the analysis of existing plus project traffic operations with the addition of project traffic all signalized intersections would continue to operate at acceptable levels-of-service based on City and County standards. All of the project study intersections would continue to have similar LOS results as the Existing Conditions and no off-site mitigations would be required. All of the study intersections would continue to have acceptable conditions (according to applicable standards) during the AM and PM peak hours.

Baseline Plus Project Conditions

Based on the analysis of baseline plus project traffic operations with the addition of project traffic all project study intersections would continue to operate at acceptable levels-of-service based on City and County standards. All of the project study intersections would continue to have similar LOS results as the Baseline Conditions and no off-site mitigations would be required. All of the study intersections would continue to have acceptable conditions (according to applicable standards) during the AM and PM peak hours.

Bicycle and Pedestrian Impacts

Based on this analysis, the proposed project would not significantly impact any bicycle or pedestrian facilities, including bike lanes, routes, or paths.

Internal Circulation and Access

No internal site circulation or access issues have been identified that would cause a traffic safety problem or any unusual traffic congestion or delay. At the main project entrance on Los Coches Street the project's side street approach should be controlled with a stop sign.

Parking

The City's Parking Ordinance requires 2.0 spaces per unit for residential unit with 3 or less bedrooms (the project would not include any units with 4 or more bedrooms) plus another 20% of the total required for guest parking (7 spaces). The project is currently proposing to meet the City's parking requirement by two garage parking spaces per unit and 9 guest parking. Based on our review of the proposed parking plan and a qualitative review of on-street parking occupancy levels in the area there should be no significant impacts to the surrounding properties.

***FORTY TWO LOT TOWNHOME DEVELOPMENT
345 & 375 LOS COCHES STREET
ENVIRONMENTAL NOISE ASSESSMENT
MILPITAS, CALIFORNIA***

December 18, 2012



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Job No.: 12-xxx

INTRODUCTION

The subject project proposes the development of 42 single-family townhomes on the property located generally northwest corner of Los Coches St. and South Milpitas Boulevard at 345 and 375 Los Coches Street. Issues related to noise associated with this project include the compatibility of the proposed residential land uses with the noise environment at the site resulting from vehicular traffic on nearby roadways and noise generated by commercial and light industrial uses in the vicinity. This assessment, provides a discussion of policies and standards applicable to the project, presents the results of noise measurements conducted in the site vicinity, and provides an evaluation of the potential significance of impacts resulting from the project. Conceptual mitigation measures are presented to reduce potentially significant noise impacts to less-than-significant levels. Persons not familiar with environmental noise and vibration analysis are referred to Appendix A (noise) for additional discussion.

REGULATORY BACKGROUND

NOISE

The City of Milpitas has established guidelines, regulations, and policies designed to limit noise exposure at noise sensitive land uses.

City of Milpitas General Plan Noise Element

The of City of Milpitas General Plan Noise Element sets forth implementing policies to guide the development of residential and commercial land uses. The following implementing policies would be applicable in the residential use of the project site:

- 6-I-1** Use the guidelines in Table 6-1 (Noise and Land Use Compatibility) as review criteria for development projects.
- 6-I-2** Require an acoustical analysis for projects located within a "conditionally acceptable" or "normally unacceptable" exterior noise exposure area. Require mitigation measures to reduce noise to acceptable levels.
- 6-I-3** Prohibit new construction where the exterior noise exposure is considered "clearly unacceptable" for the use proposed.
- 6-I-4** Where actual or projected rear yard and exterior common open space noise exposure exceeds the "normally acceptable" levels for new single-family and multifamily residential projects, use mitigation measures to reduce sound levels in those areas to acceptable levels.
- 6-I-5** All new residential development (single family and multifamily) and lodging facilities must have interior noise levels of 45 dBA L_{dn} or less. Mechanical ventilation will be required where use of windows for ventilation will result in higher than 45 dBA L_{dn} interior noise levels.
- 6-I-15** Promote installations of noise barriers along highways and the railroad corridor where substantial land uses of high sensitivity are impacted by unacceptable noise levels.

Table 6-1 in the General Plan establishes the noise land use compatibility standards for different proposed land uses. For single-family residential land use, up to 60 dBA L_{dn} is considered normally acceptable, up to 70 dBA L_{dn} is considered conditionally acceptable, and above 70 dBA L_{dn} is considered normally unacceptable, such that a detailed analysis of noise reduction requirements must be made and noise insulation features included in the design.

EXISTING NOISE ENVIRONMENT

The project site is located northwest corner of Los Coches St. and South Milpitas Boulevard at 345 and 375 Los Coches Street. The noise environment on the site primarily consists of sounds produced vehicular traffic on Milpitas Boulevard, adjacent industrial uses, vehicles circulating in adjacent parking lots, and occasional aircraft over-flights. Noise surveys have been conducted in the site vicinity both in 2007 and in 2012. The 2007 measurement (LT-1) was conducted on the northern property line over a continuous 24-hour period between November 13th and 14th, 2007, and the 2012 measurement (LT-2) was conducted in the central portion of the parking lot north of the property over a continuous 48-hour period between May 15th and May 17th, 2012. All noise measurements were conducted with Larson Davis Laboratories (LDL) Type I Model 820 Sound Level Meter fitted with a ½-inch pre-polarized condenser microphone and windscreen. Measurement Location LT-1 was made in a tree at approximately 330 feet from the center of Milpitas Boulevard, and Measurement LT-2 was made on a light standard at approximately 300 feet from the center of Milpitas Boulevard. The location of these measurements relative to the project site and Milpitas Blvd. are shown in Figure 1, below.

The measured noise levels in 2007 at site LT-1, including the energy equivalent noise level (L_{eq}), maximum (L_{max}), minimum (L_{min}), and the noise levels exceeded 10, 50 and 90 percent of the time (indicated as L_{10} , L_{50} and L_{90}) are shown on Chart 1. The very steady nature of the measured noise and the tight statistical distribution shown in Chart 1 reflects the effects

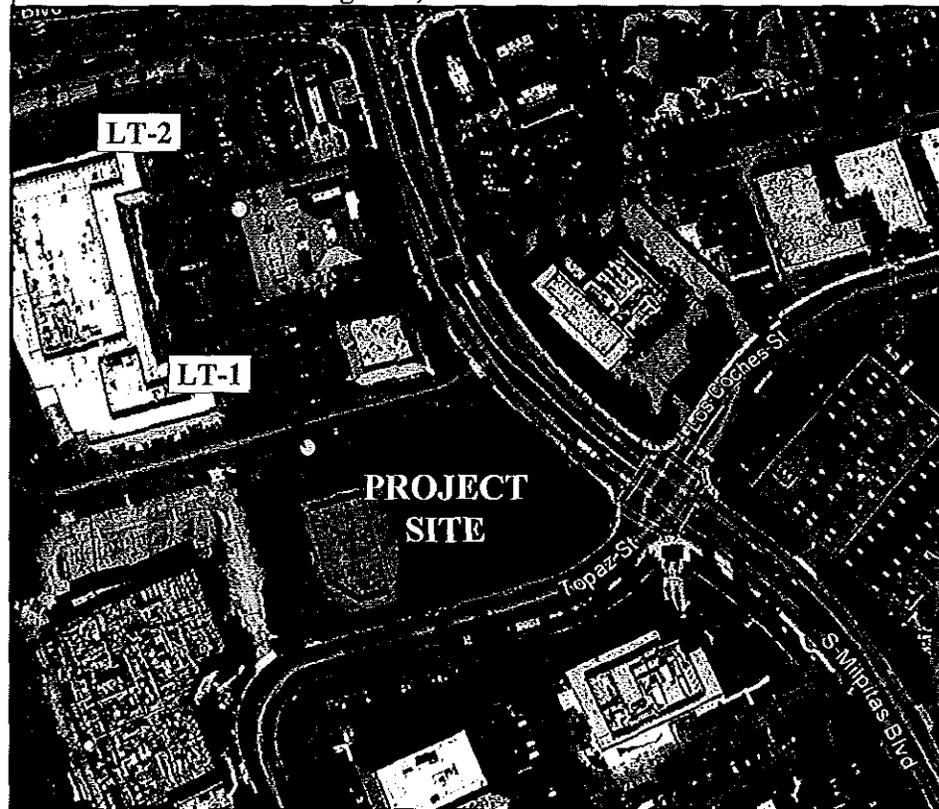
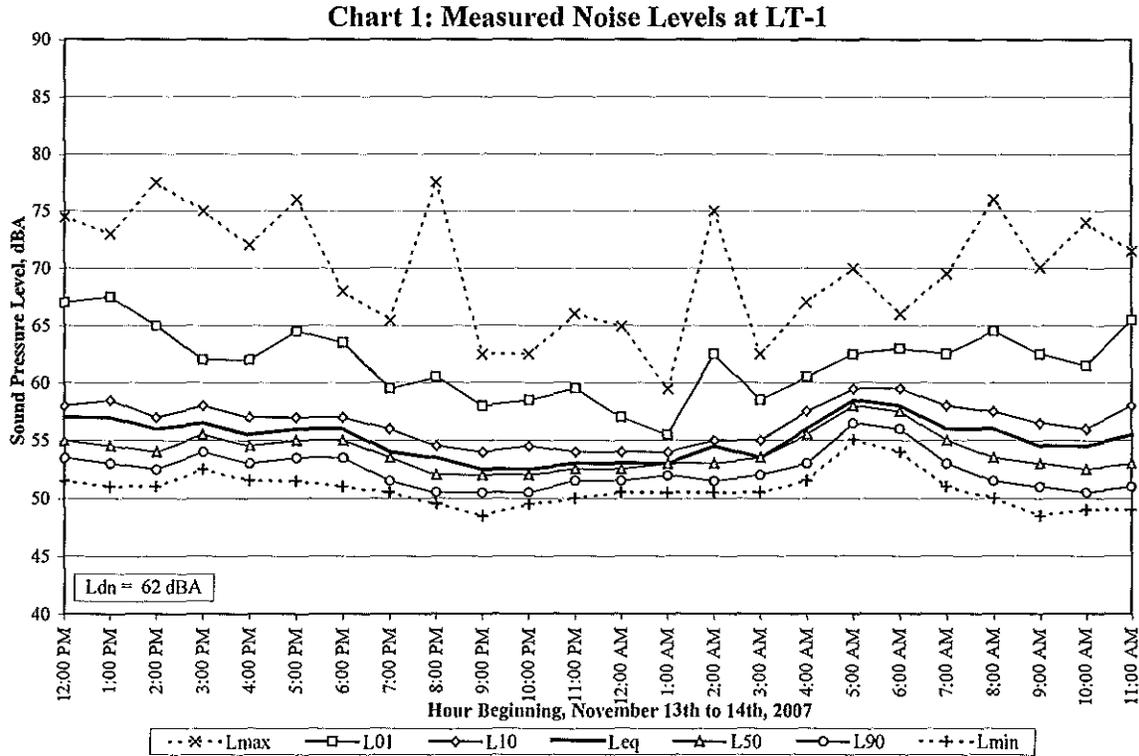


Figure 1: Project Site and Noise Monitoring Locations

of the steady mechanical equipment noise from the adjacent industrial use. This machinery generated a very steady noise level ranging from 51-55 dBA. The L_{eq} noise level is typically considered the average noise level, while the L_1 is considered the intrusive level, the L_{50} is considered the median noise level and the L_{90} is considered the background or ambient noise level. The average daytime noise levels at this location ranged from 55 to 57 dBA L_{eq} and the average hourly nighttime noise levels ranged from 52 to 58 dBA L_{eq} . Elevated noise levels, from 74 to 78 dBA, also occurred at this site during both daytime, late night and early morning

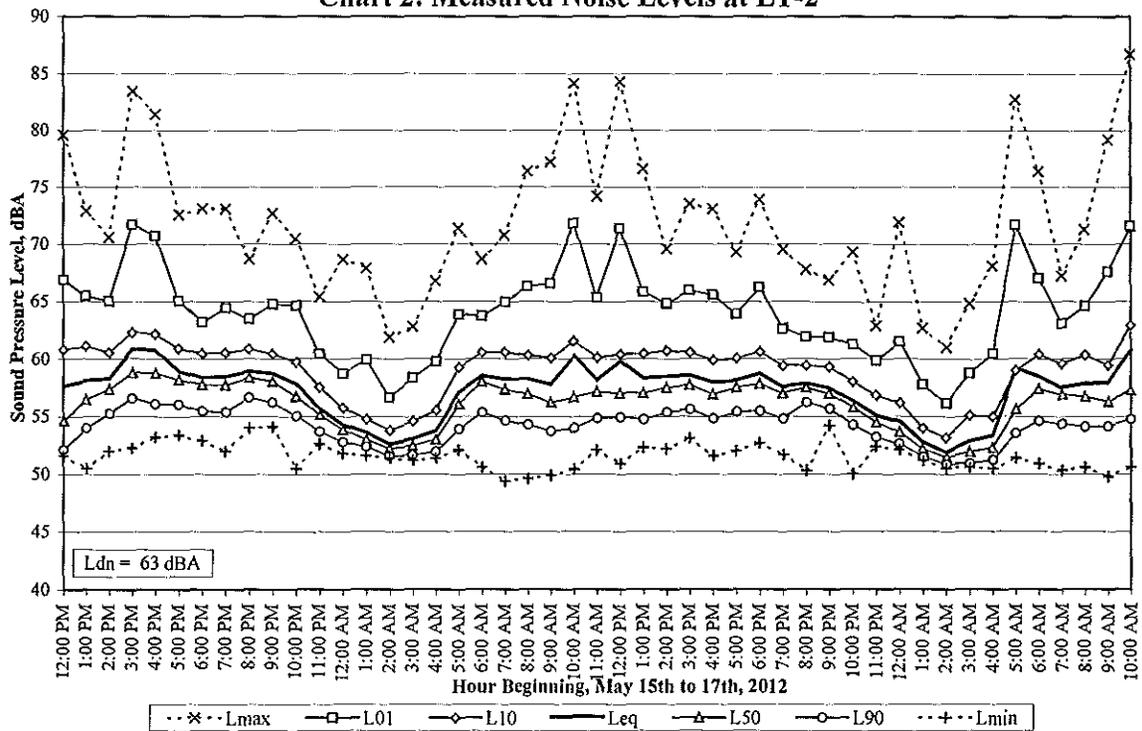
periods. The Day/Night Average Noise Level (L_{dn}) over the measurement period at LT-1 was calculated to be 62 dBA.



The measured noise levels in 2012 at site LT-2, including the energy equivalent noise level (L_{eq}), maximum (L_{max}), minimum (L_{min}), and the noise levels exceeded 10, 50 and 90 percent of the time (indicated as L_{10} , L_{50} and L_{90}) are shown on Chart 2. A review of Chart 2 indicates that the noise levels at site LT-2 followed a somewhat subdued diurnal pattern characteristic of traffic noise, where the average daytime noise levels ranging from 58 to 61 dBA L_{eq} and the average hourly nighttime noise levels ranging from 52 to 59 dBA L_{eq} . The Day/Night Average Noise Level (L_{dn}) over the two-day measurement period at LT-1 was calculated to be 63 dBA. Due to the somewhat subdued diurnal pattern, where nighttime levels did not drop to far below daytime levels, the area noise environment appears to be influenced by mechanical equipment noise from the adjacent commercial and industrial uses. Elevated noise levels, from 76 to 86 dBA, also occurred at this site during both daytime, and early morning periods. These elevated levels are judged to be due to noise produced by vehicles and trucks in the parking lot adjacent to the monitoring position.

Noise measurements in closer proximity to S. Milpitas Blvd. were not conducted for this study, however, based on an application of the typical acoustical attenuation/propagation factor of 3 dBA per doubling (or halving) of the distance from a traffic noise source, the L_{dn} noise levels at the closest residential facades to this roadway (approximately 60 to 65 feet from the centerline) would be between 69 and 70 dBA L_{dn} .

Chart 2: Measured Noise Levels at LT-2



FUTURE CONDITIONS

The future exterior noise environment across the project site would continue to result primarily from traffic along South Milpitas Blvd. Based on a review of existing versus future traffic volumes on these roadways as allowable under the build-out of the City’s General Plan, future noise levels along S. Milpitas Blvd are expected to increase by 2 dBA over current levels by 2030. Therefore, based on future traffic volumes, an L_{dn} of between 71 to 72 dBA would characterize noise levels at the residential facades adjacent to S. Milpitas Blvd.

NOISE ASSESSMENT

Based on the existing and future environmental noise levels presented above, residential lots on the northern edge of the site are expected to be exposed to future L_{dn} levels of between 71 to 72 dBA. Homes further removed from S. Milpitas Blvd. would be exposed to lower noise levels, however, all homes on the perimeter of the site with views of the roadway are expected to be exposed to future L_{dn} levels above 60 dBA. However, noise levels at the interior lots and the interior common area of the site would be reduced by the barrier effect provided by intervening structures such that these areas are expected to be exposed to future L_{dn} noise levels below 60 dBA. Figure 2, below shows the relative noise exposure on the project relative to the site plan.

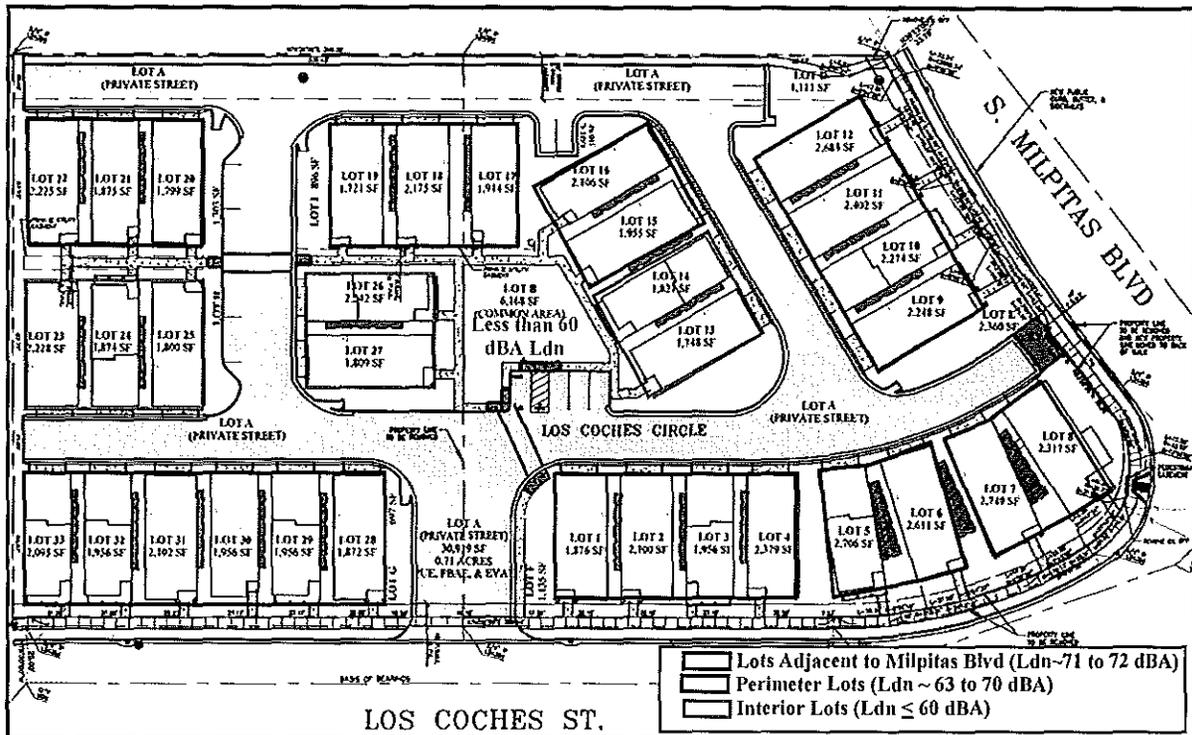


Figure 2: Site Noise Exposure

Based on this finding, the noise environment at lots adjacent to S. Milpitas Blvd. would be exposed to noise levels considered “normally unacceptable” and perimeter lots would be exposed to noise levels considered “normally unacceptable” for residential development by the City’s General Plan noise land use compatibility standards. Noise levels at the interior lots and the interior common area of the project site would be “normally acceptable” by these standards. A result of this finding is that the common exterior use area of the project site would meet City noise standards, and thus would not require noise mitigation. However, noise levels within the interiors of the homes on the site may exceed the City’s interior noise standards.

Typical wood frame construction techniques with standard thermal insulating glass in closed windows will reduce traffic noise levels by between 20 to 25 dBA. When windows open, the traffic noise attenuation from exterior to interior is reduced to between 12 to 15 dBA. Based on this average exterior to interior noise attenuation, interior L_{dn} levels residences in adjacent to S. Milpitas Blvd and on the site perimeter as identified in Figure 2, may exceed the City’s 45 dBA L_{dn} interior noise standard with closed standard thermal insulating windows. Interior noise levels in all other homes on the site are expected to be below the City’s 45 dBA L_{dn} interior noise standard when standard windows are closed for the purpose of noise control. However, noise levels within all residences may exceed an L_{dn} of 45 dBA with open windows. This is a potentially significant impact, which can be mitigated with the incorporation of Mitigation Measures 1 and 2, following.

Mitigation Measures:

1. **Sound Rated Windows:** Homes on lots adjacent to S. Milpitas Blvd. and on the site perimeter, as identified in Figure 2, will require sound rated windows to meet average (45 dBA L_{dn}) interior noise standards. The needed Sound Transmission Class (STC) ratings of the windows of these homes are expected to range from 31 to 33 on the lots adjacent to S. Milpitas Blvd., and from 29 to 31 on the identified perimeter lots. However, these rating cannot be defined at this stage in the project design. When building plans and elevations are available for these lots, an acoustical consultant should be retained to determine the needed window STC ratings necessary to achieve the 45 dBA L_{dn} interior noise limits.
2. **Mechanical Ventilation:** All residences on the site perimeter of the will require mechanical ventilation to allow the windows to remain closed at the residents' option as the interior noise standards would not be met with open windows. Typically such a system must meet the following airflow provisions:

"If interior noise levels are met by requiring that windows remain unopenable or closed, the design of the design for the structure must also specify a ventilation system to provide a habitable interior environment. The ventilation system must not compromise the dwelling unit or guest room noise reduction."

In our experience a standard central air conditioning system or a central heating system equipped with a 'summer switch' which allows the fan to circulate air without furnace operation in each residence requiring mechanical ventilation will provide a habitable interior environment and meet the airflow provisions referenced above.

APPENDIX A: FUNDAMENTALS OF ENVIRONMENTAL NOISE

Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Decibels and other technical terms are defined in Table A1.

Table A1: Definitions of Acoustical Terms Used in this Report

Term	Definitions
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period.
L_{max} , L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01} , L_{05} , L_{10} , L_{90}	The A-weighted noise levels that are exceeded 1%, 5%, 10%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn}	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Most of the sounds we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with

a weighting that reflects the facts that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called "A" weighting, and the decibel level so measured is called the A-weighted sound level (dBA). In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. Typical A-weighted levels measured in the environment and in industry are shown in Table A2 for different types of noise.

Table A2: Typical Noise Levels in the Environment

Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
	120 dBA	
Jet fly-over at 300 meters		Rock concert
	110 dBA	
Pile driver at 20 meters	100 dBA	
		Night club with live music
	90 dBA	
Large truck pass by at 15 meters		
	80 dBA	Noisy restaurant
		Garbage disposal at 1 meter
Gas lawn mower at 30 meters	70 dBA	Vacuum cleaner at 3 meters
Commercial/Urban area daytime		Normal speech at 1 meter
Suburban expressway at 90 meters	60 dBA	
Suburban daytime		Active office environment
	50 dBA	
Urban area nighttime		Quiet office environment
	40 dBA	
Suburban nighttime		
Quiet rural areas	30 dBA	Library
		Quiet bedroom at night
Wilderness area	20 dBA	
Most quiet remote areas	10 dBA	Quiet recording studio
Threshold of human hearing	0 dBA	Threshold of human hearing

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources, which create a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, L_{01} , L_{10} , L_{50} , and L_{90} , are commonly used. They are the A-weighted noise levels equaled or exceeded during 1%, 10%, 50%, and 90% of a stated time period. A single number descriptor called the L_{eq} is also widely used. The L_{eq} is the average A-weighted noise level during a stated period of time.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. However, most household noise also decreases at night and exterior noise becomes very noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, L_{dn} (average day/night sound level), was developed. The L_{dn} divides the 24-hour day into the daytime of 7:00 AM to 10:00 PM and the nighttime of 10:00 PM to 7:00 AM. The nighttime noise level is weighted 10 dB higher than the daytime noise level. .

Sleep and Speech Interference: The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noise of sufficient intensity; above 35 dBA, and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA L_{dn} . Typically, the highest steady traffic noise level during the daytime is about equal to the L_{dn} and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12-17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57-62 dBA L_{dn} with open windows and 65-70 dBA L_{dn} if the windows are closed. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed, those facing major roadways and freeways typically need special glass windows.

Annoyance: Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 55 dBA L_{dn} . At an L_{dn} of about 60 dBA, approximately 2 percent of the population is highly annoyed. When the L_{dn} increases to 70 dBA, the percentage of the population highly annoyed increases to about 12 percent of the population. There is, therefore, an increase of about 1 percent per dBA between an L_{dn} of 60-70 dBA. Between an L_{dn} of 70-80 dBA, each decibel increase increases by about 2 percent the percentage of the population highly annoyed.



November 13, 2012

Via Electronic Mail

Mr. Doyle Heaton
President and CEO
DRG Builders, Inc.
3480 Buskirk Avenue, Suite 260
Pleasant Hill, CA 94523
doyle@drgbuilders.com

Re: Risk Assessment Plan for the Residential Development at 375 Los Coches and 359 Topaz Streets, Milpitas, California

Dear Mr. Heaton:

ENVIRON International Corporation (ENVIRON) has prepared this Risk Assessment Plan (RAP) for the proposed Residential Development at 375 Los Coches and 359 Topaz Streets, Milpitas, Santa Clara County, California (herein designated as the "Project" or "Site"). The RAP evaluates "the potential health and safety risks to individuals from the exposure to hazardous materials which may occur at the proposed site due to its location in an industrial zone," as described in the Milpitas Fire Department (MFD) *Guideline for Preparation of Risk Assessments*¹. The focus of the RAP is on neighboring businesses that may store chemicals which could have off-site consequences if catastrophically released, including chemicals that are acutely toxic, exist in a form that readily allows off-site transport after release and are used or stored in sufficient quantities to cause off-site impacts.

Four of the seven surrounding industrial businesses may impact the Site, as discussed below. The seven neighboring industrial business were identified with the assistance of Mr. Albert Zamora, the Division Chief and Fire Marshal of the City of Milpitas. The industrial businesses have submitted Risk Management Plans (RMPs) under the California Accidental Release Prevention (CalARP) Program or have submitted Hazardous Material Business Plans (HMBPs) that indicate large or medium chemical use, as characterized by the City of Milpitas, including use of toxic gases under the City of Milpitas Toxic Gas Ordinance (TGO).

The United States Environmental Protection Agency (USEPA) Risk Management Program Guidance for Offsite Consequence Analysis² ("USEPA RMP Guidance") methodology was used to evaluate potential impacts at the Site. Potential release impacts were compared to the USEPA Immediately Dangerous to Life and Health (IDLH) concentration, 1/10 IDLH concentration, and USEPA Risk Management Plan (RMP) and CalARP toxic endpoint (TEP) concentration.

¹ Milpitas Fire Department Bureau of Fire Prevention. 2007. *Guideline for Preparation of Risk Assessments*. September. Available online at http://www.ci.milpitas.ca.gov/_pdfs/fire_risk_assessment_guidelines.pdf.

² USEPA. 2009. *Risk Management Program Guidance for Offsite Consequence Analysis*. EPA 550-B-99-099. March. Available online at <http://www.epa.gov/osweroe1/docs/chem/oca-chps.pdf>.

Summary of Proposed Project

The proposed Project, located at the corner of S. Milpitas Boulevard and Los Coches Street, is a 33-unit residential development. The Site is north of Los Coches Street and to the West of S. Milpitas Boulevard, which is a major thoroughfare, and south of Calaveras Boulevard (Highway 237). To the west of the Site are railroad tracks. The Site, which covers 2.66 acres, is zoned for Town Center³. Figure 1 shows the location of the proposed Project. In addition to residences, the Site features open space that may be used for recreation. Sensitive receptors such as children or the elderly may reside at the Project.

Primary Land Use in Area of Project

The proposed Project is located within a mixed-use commercial and industrial area. One high-tech manufacturing and research and development (R&D) facility, Nanogram, is within one-quarter mile of the Project. Several similar facilities, such as Headway Technologies, Linear Technology, and Magic Technologies, are within one-half mile of the Project. Calaveras Boulevard is located north of the site. North of Calaveras Boulevard is some commercial properties and residences.

Seven businesses in the vicinity of the Project were identified, with the assistance of Mr. Albert Zamora, the Division Chief and Fire Marshal of the City of Milpitas, based on either their historical hazardous material incidents or their having the potential to release hazardous chemicals⁴. The businesses are

1. Linear Technology, 275 S. Hillview Dr.
2. Headway Technologies, 497 S. Hillview Dr.
3. Nanogram, 165 Topaz St.
4. Magic Technologies, 463 S. Milpitas Blvd.
5. System Services of America, Inc., 1029 Montague Expressway
6. Siemens Water Technologies, 960 Ames Ave.
7. T. Marzetti, 876 Yosemite Dr.

Figure 2 shows the location of each of these seven facilities with respect to the Project.

Table 1 lists the distance between each business and the Project, the chemicals of concern at each business, and the maximum amount stored at any one time. The chemicals of concern are those that are acutely toxic, exist in a form that readily allows off-site transport after release, or are used or stored in sufficient quantities to have off-site consequences if catastrophically released. The list includes chemicals with CalARP thresholds and USEPA TEPs.

Evaluation of Risk

An off-site consequence analysis was performed for each of the seven facilities identified as having the potential to release chemicals of concern. The off-site consequence analysis followed the USEPA

³ City of Milpitas. 2011. *Zoning Map*. December. Available online at http://www.ci.milpitas.ca.gov/_pdfs/plan_map_zoning.pdf

⁴ Telephone conversation between Mr. Albert Zamora of the City of Milpitas and Mr. Michael Keinath of ENVIRON, 28 August 2012.

RMP Guidance. The USEPA RMP Guidance tabulates the distance to the TEP concentration based on the release rate of a given chemical, with specific tables for ammonia and chlorine. The USEPA RMP Guidance tables were used to find the distances to the IDLH and 1/10 IDLH concentrations, as well.

The USEPA RMP Guidance has defined the worst-case release scenario as the release of the largest quantity of a regulated substance from a single vessel or process line failure that results in the greatest distance to an endpoint under conservative meteorological conditions. For the worst-case release scenario analysis under RMP, the possible causes of the worst-case release or the probability that such a release might take place are not considered; the release is simply assumed to occur. Worst-case release scenarios represent the failure modes that would result in the worst possible off-site consequences, however unlikely, and not more likely smaller releases that would potentially result in smaller impacts. ENVIRON assumed the worst case is a ten-minute release of the entire quantity of a chemical stored on site.

To evaluate the potential zone of impact that could be potentially affected if any of the seven identified facilities had a catastrophic release of a chemical of concern, ENVIRON used dispersion parameters in Table 5 of the USEPA RMP Guidance. This table assumes the release is of a dense gas in a rural setting. For ammonia and chlorine releases, ENVIRON used dispersion parameters in Tables 9 and 11, respectively. The meteorological conditions assumed for dispersion are Pasquill Stability Class F and a wind speed of 1.5 meters per second. This combination represents a conservative scenario, that is, the largest zone of impact for the amount of chemical released.

Each chemical at each facility was evaluated individually for distance to the IDLH, TEP, and 1/10 IDLH concentration. Table 1 includes the results of the risk assessment.

Risk Assessment Conclusion

The Project is in the 1/10 IDLH concentration zone of impact for four of the seven industrial businesses included in this risk assessment. The Project is also in the TEP concentration zone of impact for the same four industrial businesses. Table 1 shows both the distance from the Project to each business and the zones of impact for IDLH, TEP, and 1/10 IDLH. Figure 3 shows the extent of the maximum 1/10 IDLH concentration zone of impact for each business for which the Project is in the 1/10 IDLH concentration zone of impact. The impacts by business are discussed below.

ENVIRON understands that the MFD only requires the distance to the 1/10 IDLH concentration for planning purposes and decisions. We further understand that the MFD would also like distances to the IDLH and TEP concentrations for Fire Department planning purposes. Distances to the IDLH, TEP, and 1/10 IDLH concentration zones of impact are all discussed here.

Linear Technology, 275 S. Hillview Dr.

The chemicals of concern at Linear Technology are anhydrous ammonia, a mixture with 1% arsine, boron trifluoride, chlorine, a mixture with 5% diborane, dichlorosilane, hydrogen bromide, hydrogen chloride, nitrogen trifluoride, a mixture with 15% phosphine, pure phosphine, a solution of 30% sodium hydroxide, a solution of 36% sulfuric acid, sulfur hexafluoride and tungsten hexafluoride. Worst-case releases of hydrogen chloride, sodium hydroxide, and sulfuric acid were not evaluated.

Hydrogen chloride is a liquid with a low vapor pressure and therefore does not readily evaporate. As such, the EPA RMP guidance does not include methodology for calculating distances to endpoints for such a release.

Pure sodium hydroxide is a solid and has a low vapor pressure and therefore does not readily evaporate. As such, the EPA RMP Guidance does not include methodology for calculating distances to endpoints for such a release. Additionally, sodium hydroxide is not included as a CalARP regulated chemical.

The USEPA RMP Guidance only establishes a TEP for sulfuric acid if it is combined with sulfur trioxide in the form of oleum. Additionally, sulfuric acid is only regulated under CalARP if concentrated with greater than 100 pounds of sulfur trioxide or the acid meets the definition of oleum. The sulfuric acid at these facilities is not in the form of oleum, therefore no TEP is established.

Chlorine at Linear Technology has the greatest distance to the 1/10 IDLH and thus IDLH zone of impact of all chemicals stored on site, at 1.2 miles to the 1/10 IDLH concentration and 0.4 miles to the IDLH concentration. Diborane has the largest TEP zone of impact, 1.2 miles. The Project is 0.2 miles to the northwest of Linear Technology, and as such is inside the IDLH zone of impact for chlorine, diborane, and hydrogen bromide. The Project is in the TEP zone of impact for chlorine, diborane, and pure phosphine from Linear Technology. The Project is in the 1/10 IDLH zone of impact for anhydrous ammonia, boron trifluoride, chlorine, diborane, hydrogen bromide, and pure phosphine from Linear Technology.

Under the worst-case scenario for the actual amount of anhydrous ammonia, boron trifluoride, chlorine, diborane, hydrogen bromide, and pure phosphine stored in the single largest vessel, the Project is located within the hypothetical distance to the 1/10 IDLH concentrations of these chemicals.

Headway Technologies, 497 S. Hillview Dr.

The chemicals of concern at Headway Technologies are anhydrous ammonia, boron trichloride, chlorine, a solution of 50% sodium hydroxide, and a solution of 30% sulfuric acid. Worst-case releases of sodium hydroxide and sulfuric acid were not evaluated, as discussed in the results for Linear Technology.

Chlorine at Headway Technologies has the greatest distance to the 1/10 IDLH and thus IDLH zone of impact of all chemicals stored on site, at 0.8 miles to the 1/10 IDLH concentration and 0.2 miles to the IDLH concentration. Boron trichloride has the largest TEP zone of impact, 1.4 miles. The Project is 0.39 miles to the northwest of Headway Technologies, and as such is inside the TEP zone of impact for chlorine and boron trichloride. The Project is in the 1/10 IDLH zone of impact for chlorine from Headway Technologies.

Under the worst-case scenario for the actual amount of chlorine stored in the single largest vessel, the Project is located within the hypothetical distance to the 1/10 IDLH concentration.

Nanogram, 165 Topaz St.

Nanogram is located immediately south of the Project. The chemicals of concern at Nanogram are anhydrous ammonia, a mixture with 10% diborane, a mixture with 10% phosphine, and sulfur hexafluoride.

Phosphine at Linear Technology has the greatest distance to the 1/10 IDLH and thus IDLH zone of impact of all chemicals stored on site, at 0.2 miles to the 1/10 IDLH concentration and 0.1 miles to the IDLH concentration. Phosphine also has the largest TEP zone of impact, 0.3 miles. The Project is 0.1 miles to the north-northeast of Nanogram, and as such is inside the TEP zone of impact for

diborane and phosphine from Nanogram. The Project is in the 1/10 IDLH zone of impact for anhydrous ammonia, diborane, and phosphine from Nanogram.

Under the worst-case scenario for the actual amount of anhydrous ammonia, diborane, and phosphine stored in the single largest vessel, the Project is located within the hypothetical distance to the 1/10 IDLH concentrations of these chemicals.

Magic Technologies, 463 S. Milpitas Blvd.

The chemicals of concern at Magic Technologies are anhydrous ammonia, boron trichloride, carbon monoxide, chlorine, hydrogen bromide, a solution of 30% sodium hydroxide, and a solution of 36% sulfuric acid. Worst-case releases of sodium hydroxide and sulfuric acid were not evaluated, as discussed in the results for Linear Technology.

Hydrogen bromide at Magic Technologies has the greatest distance to the 1/10 IDLH and thus IDLH zone of impact of all chemicals stored on site, at 1 mile to the 1/10 IDLH concentration and 0.3 miles to the IDLH concentration. Boron trichloride has the largest TEP zone of impact, 1.4 miles. The Project is 0.33 miles to the north-northwest of Magic Technologies, and as such is inside the TEP zone of impact for chlorine and boron trichloride. The Project is in the 1/10 IDLH zone of impact for chlorine and hydrogen bromide from Magic Technologies.

Under the worst-case scenario for the actual amount of chlorine and hydrogen bromide stored in the single largest vessel, the Project is located within the hypothetical distance to the 1/10 IDLH concentrations of these chemicals.

System Services of America, Inc., 1029 Montague Expressway

The chemical of concern at System Services of America, Inc., is anhydrous ammonia. The distances to the IDLH, TEP and 1/10 IDLH concentrations are 0.4, 0.4, and 1.1 miles from System Services of America, Inc., respectively. The Project is 1.2 miles to the north-northwest of System Services of America, Inc., and as such is outside the IDLH, TEP, and 1/10 IDLH zones of impact for anhydrous ammonia.

Under the worst-case scenario for the actual amount of anhydrous ammonia stored in the single largest vessel, the Project is not located within the hypothetical distance to the 1/10 IDLH concentration of anhydrous ammonia.

Siemens Water Technologies, 960 Ames Ave.

The chemicals of concern at Siemens Water Technologies are solutions of 50% sodium hydroxide and 31% hydrogen chloride. Worst-case releases of sodium hydroxide and hydrogen chloride were not evaluated, as discussed in the results for Linear Technology. Additionally, hydrogen chloride less than 37% is not included as a CalARP or USEPA RMP regulated chemical.

T. Marzetti, 876 Yosemite Dr.

The chemical of concern at T. Marzetti is a solution of 30% sodium hydroxide. Worst-case releases of sodium hydroxide were not evaluated, as discussed in the results for Linear Technology.

Limitations

This report has been prepared exclusively for use by DRG for submission to the City of Milpitas and may not be relied upon by any other person or entity without ENVIRON's express written permission. The conclusions presented in this report represent ENVIRON's professional judgment based upon

the information available to us and as provided by the MFD and conditions existing as of the date of this report, and are correct to the best of ENVIRON's knowledge as of the date of this report. Future conditions (e.g., new industrial uses) may differ from those described herein and this report is not intended for use in future evaluations of risks to the site. In performing this assignment, ENVIRON relied upon publicly available information, including information submitted by facilities to the Milpitas Fire Department. Accordingly, the conclusions in this report are valid only to the extent that the information provided to ENVIRON was accurate and complete. ENVIRON does not make any warranties or representations, whether expressed or implied, regarding the accuracy of such information, and shall not be held accountable or responsible in the event that any such inaccuracies are present.

ENVIRON's scope of work for this assignment was limited to identifying neighboring businesses, as identified by MFD, that may store chemicals that could have off-site consequences if catastrophically released. The proposed Project is located in close proximity to both I-680 (the Site is approximately 0.6 miles to the west of I-680) and I-880 (the Site is approximately 0.9 miles to the east of I-880), and is located adjacent to the a railroad right-of-way, consisting of multiple tracks. The scope of work for this report did not include evaluation of potential risks from trucks accidents or railcar derailments involving releases of hazardous materials. Further, because the proposed Project is located within the greater Bay Area, which is urban and industrialized, the proposed Project faces the same potential risks and hazards as any other business in an industrial or urban area. This report is intended, consistent with normal standards of practice and care, to assist the client in identifying the risks of known current conditions within the Site vicinity.

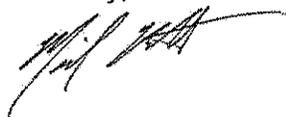
Conclusion

Only one of the seven industrial facilities evaluated in this RAP, System Services of America, Inc., uses chemicals in amounts larger than the CalARP Threshold Quantity. Facilities using regulated substances in a process in excess of the CalARP Threshold Quantity are subject to CalARP Program requirements, which vary depending on the location, size, and type of the facility. System Services of America, Inc., is assumed to be compliant with CalARP requirements. The Subject Property, however, is located far enough away from System Services of America, Inc., to not be within its CalARP TEP zone of impact for anhydrous ammonia.

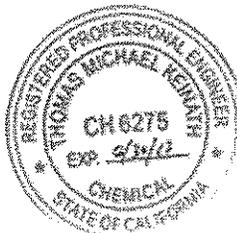
Although the project is not within a CalARP TEP zone of impact, as a result of being within the 1/10 IDLH zones of impact of anhydrous ammonia, chlorine, diborane, hydrogen bromide, and phosphine the following mitigation measure is recommended to help ensure public safety: the Project will provide an Emergency Action Plan (EAP) with evacuation and shelter-in-place procedures to the MFD. In addition, the Project homeowners association should review this RAP and the EAP, update the RAP and EAP as required, and submit the RAP and EAP to the MFD on an annual basis.

If you have any questions or need further information, please feel free to contact Michael at 415.796.1934 or mkeinath@environcorp.com.

Sincerely,



Michael Keinath, PE
Senior Manager



Elizabeth A. Miesner, MS
Principal

Attachments:

- | | |
|----------|--|
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Tables

Table 1
 Distances to the IDLH, TEP, & 1/10 IDLH for Catastrophic Release Scenario for Toxic Gases and Liquids of Concern¹ Stored in the Vicinity of the Project
 375 Los Coches Street and 359 Topaz Street, Milpitas, California

Facility	Approximate Distance and Direction from Proposed Site ²	Chemical	%	Largest Container Reported	Reported Units	Amount of Toxic Chemical in Largest Container (lbs) ³	CalARP Threshold Quantity (lbs)	Ratio of CalARP Threshold to Largest Container	Release Rate (lbs/min) ⁴	IDLH (mg/L)	TEP (mg/L)	1/10 IDLH (mg/L)	IDLH Distance (mi) ⁵	TEP Distance (mi) ^{5,6}	1/10 IDLH Distance (mi) ^{5,6}
Linear Technology 275 S. Hillview Drive	0.2 miles to the SE	Anhydrous Ammonia ^{7,8}	100%	1,150	cu ft	50	500	10	5	0.21	0.14	0.021	0.1	0.1	0.4
		Arsine	1%	176	cu ft	0.35	100	290	0.035	0.0095	0.0019	0.00095	0.02	0.04	0.1
		Boron Trifluoride	100%	29	cu ft	4.9	500	100	0.49	0.069	0.028	0.0069	0.1	0.1	0.2
		Chlorine ⁹	100%	540	cu ft	98	100	1	9.8	0.029	0.0087	0.0029	0.4	0.7	1.2
		Diborane	5%	158	lbs	7.9	100	13	0.79	0.017	0.0011	0.0017	0.2	1.2	0.9
		Dichlorosilane	100%	310	cu ft	80	10,000	130	8	NA	NE	NA	NA	NE	NA
		Hydrogen Bromide	100%	329	cu ft	68	NE	--	6.8	0.099	NE	0.0099	0.3	NE	1
		Hydrogen Chloride	100%	540	cu ft	50	500	10	5	0.074	0.030	0.0074	--	--	--
		Nitrogen Trifluoride	100%	216	cu ft	39	NE	--	3.9	2.9	NE	0.29	0.1	NE	0.2
		Phosphine	15%	189	cu ft	2.5	500	200	0.25	0.069	0.0035	0.0069	0.1	0.2	0.1
		Phosphine	100%	189	cu ft	16	500	31	1.6	0.069	0.0035	0.0069	0.2	1.1	0.7
		Sodium Hydroxide ⁹	30%	900	gal	3,000	NE	--	300	0.01	NE	0.001	--	NE	--
		Sulfuric Acid ¹⁰	36%	500	gal	1,600	NE	--	160	0.015	NE	0.0015	--	NE	--
		Sulfur Hexafluoride	100%	287	cu ft	110	NE	--	11	ND	NE	ND	ND	NE	ND
Tungsten Hexafluoride	100%	55	cu ft	42	NE	--	4.2	NA	NE	NA	NA	NE	NA		
Headway Technologies 497 S. Hillview Drive	0.39 miles to the SE	Anhydrous Ammonia ^{7,8}	100%	250	cu ft	11	500	46	1.1	0.21	0.14	0.021	0.1	0.1	0.2
		Boron Trichloride	100%	250	cu ft	75	500	6.7	7.5	NA	0.010	NA	NA	1.4	NA
		Chlorine ⁹	100%	250	cu ft	45	100	2.2	4.5	0.029	0.0087	0.0029	0.2	0.5	0.8
		Sodium Hydroxide ⁹	50%	700	gal	4,500	NE	--	450	0.01	NE	0.001	--	NE	--
		Sulfuric Acid ¹⁰	30%	250	gal	820	NE	--	82	0.015	NE	0.0015	--	NE	--
Magic Technologies 463 S. Milpitas Blvd.	0.33 miles to the SSE	Anhydrous Ammonia ^{7,8}	100%	250	cu ft	11	500	46	1.1	0.21	0.14	0.021	0.1	0.1	0.2
		Boron Trichloride	100%	250	cu ft	75	500	6.7	7.5	NA	0.010	NA	NA	1.4	NA
		Carbon Monoxide	100%	250	cu ft	18	NE	--	1.8	1.4	NE	0.14	0.1	NE	0.2
		Chlorine ⁹	100%	250	cu ft	45	100	2.2	4.5	0.029	0.0087	0.0029	0.2	0.5	0.8
		Hydrogen Bromide	100%	250	cu ft	52	NE	--	5.2	0.099	NE	0.0099	0.3	NE	1
		Sodium Hydroxide ⁹	30%	1,000	gal	3,300	NE	--	330	0.01	NE	0.001	--	NE	--
Sulfuric Acid ¹⁰	36%	1,000	gal	3,100	NE	--	310	0.015	NE	0.0015	--	NE	--		
Nanogram 165 Topaz Street	0.10 miles to the SSW	Anhydrous Ammonia ^{7,8}	100%	250	cu ft	11	500	46	1.1	0.21	0.14	0.021	0.1	0.1	0.2
		Diborane	10%	154	cu ft	1.1	100	92	0.11	0.017	0.0017	0.0017	0.03	0.2	0.1
		Phosphine	10%	484	cu ft	4.2	500	120	0.42	0.069	0.0035	0.0069	0.1	0.3	0.2
		Sulfur Hexafluoride	100%	337	cu ft	130	NE	--	13	ND	NE	ND	ND	NE	ND
T. Marzetti 876 Yosemite Dr	0.65 miles to the SSE	Sodium Hydroxide ⁹	30%	700	gal	2,300	NE	--	230	0.01	NE	0.001	--	NE	--
Siemens Water Technologies 960 Ames Avenue	0.94 miles to the SSE	Sodium Hydroxide ⁹	50%	7,000	gal	45,000	NE	--	4500	0.01	NE	0.001	--	NE	--
		Hydrochloric Acid ¹¹	31%	7,000	gal	21,000	NE	--	2100	0.074	NE	0.0074	--	NE	--
System Services, Inc. 1029 Montague Expressway	1.2 miles to the SSE	Anhydrous Ammonia ^{7,8}	100%	12,000	cu ft	520	500	0.96	52	0.21	0.14	0.021	0.4	0.4	1.1

Notes:
 TEP values and distance to toxic endpoints based on USEPA 1999. For chemicals with a release rate less than 1 lb/min, distances were extrapolated assuming that the distance was linear between release rates of 0 and 1 lb/min.
 IDLH values based on NIOSH 1894.
 BOLD indicates that the distance to the toxic endpoint is greater than the distance to the proposed DRG development.

¹ As requested by the Milpitas Fire Department (MFD).
² Distance based on center of facility to closest Project boundary.
³ If the largest container was reported as a volume (e.g., cu ft), the conversion to pounds was estimated based on specific volume of gas (cu ft/lb) in USEPA 1999. If the toxic chemical is a percentage by weight of the total container (e.g., 5% Diborane), then the amount of toxic chemical in the largest container was adjusted to represent only the amount of the toxic chemical in the container.
⁴ Assumes outside worst-case catastrophic release in which all of the toxic chemical is released from the largest container in 10 minutes.
⁵ Assumes rural landscape and a dense gas release.
⁶ ENVIRON understands that the planning department only requires the distance to the 1/10 IDLH concentration for planning purposes and decisions. We further understand that the MFD would also like to see distances to either the RMP/CalARP toxic endpoint (TEP) or the IDLH for Fire Department planning purposes.
⁷ Assumes anhydrous ammonia is liquified under pressure.

Table 1

⁸ Distances for anhydrous ammonia and chlorine based on chemical-specific dispersion models provided in USEPA 1999.

⁹ Density of sodium hydroxide solutions (30% solution = 1.33; 50% solution = 1.53) taken from JTBaker MSDS. Distances to IDLH and TEP were not calculated as pure sodium hydroxide is a solid and has a low vapor pressure and therefore does not readily evaporate. As such, the EPA RMP guidance does not include methodology for calculating distances to endpoints for such a release. Additionally, sodium hydroxide is not included as a CalARP regulated chemical.

¹⁰ Density of sulfuric acid solution (1.272) taken from aqualogic MSDS. http://www.aqualogicinc.net/files/MSDS_-_Sulfuric_Acid.txt. Distances to IDLH and TEP were not calculated as EPA RMP guidance only provides a TEP for sulfuric acid if combined with sulfur trioxide in the form of oleum. Additionally, sulfuric acid is only regulated under CalARP if concentrated with greater than 100 pounds of sulfur trioxide or the acid meets the definition of oleum; the sulfuric acid at these facilities meets neither of these conditions, therefore no TEP is established.

¹¹ Density of hydrochloric acid solution (1.18) taken from JTBaker MSDS. Distances to IDLH and TEP were not calculated as hydrochloric acid is a liquid with a low vapor pressure and therefore does not readily evaporate. As such, the EPA RMP guidance does not include methodology for calculating distances to endpoints for such a release. Additionally, hydrochloric acid less than 37% is not included as a CalARP or EPA RMP regulated chemical.

NA = not available

ND = IDLH not determined

NE = not established

— = Not calculated because a required parameter was not established.

References:

USEPA. 2009. *Risk Management Program Guidance for Offsite Consequence Analysis*. Office of Solid Waste and Emergency Response. EPA 550-B-99-009. March.

NIOSH. 1994. *NIOSH Pocket Guide to Chemical Hazards*. June.

Acronyms

CalARP = California Accidental Release Prevention

cu ft = cubic feet

gal = gallons

IDLH = Immediately Dangerous to Life or Health

lbs = pounds

mg/l = milligram per liter

mi = miles

min = minute

MSDS = material safety data sheet

NIOSH = National Institute for Occupational Safety and Health

RMP = Risk Management Program

TEP = Toxic Endpoint

USEPA = United States Environmental Protection Agency

Figures



Proposed Project Boundary
 DRG
 Milpitas, California

Figure
1

Drafter: RS

Date: 9/10/12

Contract Number: 03-31097A

Approved:

Revised:



MAP SOURCE: Bing Maps



Industrial Facilities Near the Proposed Project
 DRG
 Milpitas, California

Figure

2

Drafter: RS

Date: 9/10/12

Contract Number: 03-31097A

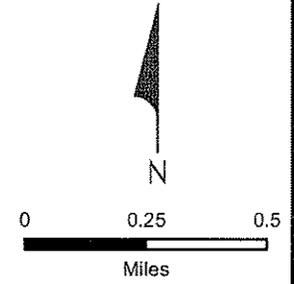
Approved:

Revised:



Legend

- Linear Technology
- Magic Technologies
- Headway Technologies
- Nanogram
- ⋯ 1/10 IDLH for Chlorine;
1.2 Miles from Linear Technology
- ⋯ 1/10 IDLH for Hydrogen Bromide;
1 Miles from Magic Technologies
- ⋯ 1/10 IDLH for Chlorine;
0.8 Miles from Headway Technologies
- ⋯ 1/10 IDLH for Phosphine;
0.21 Miles from Nanogram
- Project location



MAP SOURCE: Bing Maps.



Maximum Distances to 1/10 IDLH Concentration
 DRG
 Milpitas, California

Figure
3

Drafter: SD Date: 9/10/12 Contract Number: 03-31097A Approved: Revised:

Path: Y:\Air\Braddock and DRG\GIS\DRG_Figure 3.mxd

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**GREENHOUSE GAS/ AIR QUALITY TECHNICAL REPORT FOR THE 345/375 LOS
COCHES PROJECT, CITY OF MILPITAS**

Prepared for:

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June 2012

Air Pollution Meteorology • Dispersion Modeling • Climatological Analysis

INTRODUCTION

The 345/375 Los Coches project would be located on a 2.5-acre site at the northwest corner of the intersection of Los Coches Street and S. Milpitas Blvd. There is currently a vacant 20,000 sq. ft. commercial building on the site. The project would demolish the existing structure on the site and replace it with 23 single family residences.

This report describes the effects of the proposed project on greenhouse gas emissions and local/regional air quality. It discusses existing air quality, construction-related impacts, direct and indirect emissions associated with the project, the impacts of these emissions on both the local and regional scale, and mitigation measures to reduce or eliminate any identified significant impacts. The analysis was conducted using guidance provided by the Bay Area Air Quality Management District (BAAQMD).

EXISTING SETTING

Air Pollution Climatology

The amount of a given pollutant in the atmosphere is determined by the amount of pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and, for photochemical pollutants, sunshine.

Northwest winds and northerly winds are most common in the project area, reflecting the orientation of the Bay and the San Francisco Peninsula. Winds are lightest on the average in fall and winter. Every year in fall and winter there are periods of several days when winds are very light and local pollutants can build up.

Pollutants can be diluted by mixing in the atmosphere both vertically and horizontally. Vertical mixing and dilution of pollutants are often suppressed by inversion conditions, when a warm layer of air traps cooler air close to the surface. During the summer, inversions are generally elevated above ground level, but are present over 90 percent of the time in both the morning and afternoon. In winter, surface-based inversions dominate in the morning hours, but frequently dissipate by afternoon.

Topography can restrict horizontal dilution and mixing of pollutants by creating a barrier to air movement. The South Bay has significant terrain features that affect air quality. The Santa Cruz Mountains and Hayward Hills on either side of the South Bay restrict horizontal dilution, and this alignment of the terrain also channels winds from the north to south, carrying pollution from the East Bay toward Milpitas.

The combined effects of moderate ventilation, frequent inversions that restrict vertical dilution and terrain that restrict horizontal dilution give Milpitas a relatively high

atmospheric potential for pollution compared to other parts of the San Francisco Bay Air Basin and provide a high potential for transport of pollutants to the east and south.

Ambient Air Quality Standards

Criteria Pollutants

Both the U. S. Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. Table 1 identifies the major criteria pollutants, characteristics, health effects and typical sources. The federal and California state ambient air quality standards are summarized in Table 2.

The federal and state ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent. This is particularly true for ozone and particulate matter (PM₁₀ and PM_{2.5}).

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important, in terms of health risk, are diesel particulate, benzene, formaldehyde, 1,3-butadiene and acetaldehyde.

Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Health effects of TACs include cancer, birth defects, neurological damage and death.

Ambient Air Quality

The Bay Area Air Quality Management District (BAAQMD) monitors air quality at several locations within the San Francisco Bay Air Basin. The closest multi-pollutant monitoring site to the project site is located in downtown San Jose on Jackson Street. Table 3 summarizes exceedances of State and Federal standards at this monitoring site

Table 1: Major Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors (primarily reactive hydrocarbons and oxides of nitrogen. Often called photochemical smog.	Eye Irritation Respiratory function impairment.	The major sources ozone precursors are combustion sources such as factories and automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	Carbon monoxide is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels.	Impairment of oxygen transport in the bloodstream. Aggravation of cardiovascular disease. Fatigue, headache, confusion, dizziness. Can be fatal in the case of very high concentrations.	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	Reddish-brown gas that discolors the air, formed during combustion.	Increased risk of acute and chronic respiratory disease.	Automobile and diesel truck exhaust, industrial processes, fossil-fueled power plants.
Sulfur Dioxide	Sulfur dioxide is a colorless gas with a pungent, irritating odor.	Aggravation of chronic obstruction lung disease. Increased risk of acute and chronic respiratory disease.	Diesel vehicle exhaust, oil-powered power plants, industrial processes.
Particulate Matter (PM ₁₀ /PM _{2.5})	Solid and liquid particles of dust, soot, aerosols and other matter which are small enough to remain suspended in the air for a long period of time.	Aggravation of chronic disease and heart/lung disease symptoms.	Combustion, automobiles, field burning, factories and unpaved roads. Also a result of photochemical processes.

Table 2: Federal and State Ambient Air Quality Standards^{1,2}

Air Pollutant	Averaging Time	California Standard	Attainment Status	Federal Standard	Attainment Status
Ozone (O ₃)	1 hour	0.09 ppm	N	—	
	8 hour	0.070 ppm	N	0.075 ppm	N
Respirable particulate matter (PM ₁₀)	24 hour	50 µg/m ³	N	150 µg/m ³	U
	Mean	20 µg/m ³	N	—	—
Fine particulate matter (PM _{2.5})	24 hour	—	—	35 µg/m ³	N
	Mean	12 µg/m ³	N	15.0 µg/m ³	A
Carbon monoxide (CO)	1 hour	20 ppm	A	35 ppm	A
	8 hour	9.0 ppm	A	9 ppm	A
Nitrogen dioxide (NO ₂)	1 hour	0.18 ppm	A	0.100 ppm	U
	Mean	0.030 ppm	—	0.053 ppm	A
Sulfur dioxide (SO ₂)	1 hour	0.25 ppm	A	0.075 ppm	A
	24 hour	0.04 ppm	A	0.014 ppm	A
Lead	30-day	1.5 µg/m ³	A	—	—
	Quarter	—	—	1.5 µg/m ³	A
Sulfates	24 hour	25 µg/m ³	A	No Federal Standard	
Hydrogen sulfide	1 hour	0.03 ppm	U		
Vinyl chloride	24 hour	0.01 ppm	No Information Available		

Abbreviations:

A = Attainment

N = Nonattainment

U = Unclassified

ppm = parts per million

µg/m³ = micrograms per cubic meter

30-day = 30-day average

Quarter = Calendar quarter

Mean = Annual Arithmetic Mean

¹ California Air Resources Board, *Ambient Air Quality Standards*, 2/7/12. (<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>)

² Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, (<http://www.baaqmd.gov/Divisions/Planning-and-Research/Air-Quality-Standards.aspx>), Accessed 8 March 2012.

during the period 2009-2011. Table 3 shows that ozone and PM_{2.5} exceed the state standards in the South Bay.

Attainment Status and Regional Air Quality Plans

The federal Clean Air Act and the California Clean Air Act of 1988 require that the State Air Resources Board (ARB), based on air quality monitoring data, designate portions of the state where the federal or state ambient air quality standards are not met as "nonattainment areas". Because of the differences between the national and state standards, the designation of nonattainment areas is different under the federal and state legislation. The U. S. Environmental Protection Agency has classified the San Francisco Bay Area as a non-attainment area for the federal 8-hour ozone standard and PM_{2.5} standards. The Bay Area was designated as unclassifiable/attainment for the federal PM₁₀ standard.

Under the California Clean Air Act, Santa Clara County is a non-attainment area for ozone and particulate matter (PM₁₀ and PM_{2.5}). The county is either attainment or unclassified for other pollutants.

Greenhouse Gases and Climate Change

Definition of Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHG's has been implicated as a driving force for global climate change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and anthropogenic activities which alter the composition of the global atmosphere.

California State law defines greenhouse gases as:

- Carbon Dioxide (CO₂)
- Methane (CH₄)
- Nitrous Oxide (N₂O)
- Hydrofluorocarbons
- Perfluorocarbons
- Sulfur Hexafluoride

The most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide. The last 3 of the six identified GHGs are primarily emitted by industrial facilities. For this analysis, only carbon dioxide, methane and nitrous oxide emissions will be considered. These primary greenhouse gases are described below.

Table 3: Summary of Air Quality Data for San Jose - Jackson Street

Pollutant	Standard	Days Exceeding Standard in:		
		2009	2010	2011
Ozone	State 1-Hour	0	5	1
Ozone	Federal 8-Hour	0	3	0
Ozone	State 8-Hour	0	3	0
Carbon Monoxide	State/Federal 8-Hour	0	0	0
Nitrogen Dioxide	State 1-Hour	0	0	0
PM ₁₀	Federal 24-Hour	0	0	0
PM ₁₀	State 24-Hour	0	0	0
PM _{2.5}	Federal 24-Hour	0	3	3
Sulfur Dioxide	State 24-Hour	0	0	0

Source: Air Resources Board, Aerometric Data Analysis and Management (ADAM), 2012. (<http://www.arb.ca.gov/adam/cgi-bin/adamtop/d2wstart>)

Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 35 percent. Carbon dioxide is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining GWPs for other GHGs.

Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of methane is 21.

Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 310.

Greenhouse Gas Effects

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

Federal Greenhouse Gas Regulations

In September 2009, EPA issued a final rule for mandatory reporting of GHGs from large GHG emissions sources in the United States. In general, this national reporting requirement will provide EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons or more of CO₂ per year. An estimated 85% of the total U.S. GHG emissions, from approximately 10,000 facilities, is covered by this final rule.

In April 2009 EPA published their Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the CCA (Endangerment Finding) in the Federal Register. The Administrator proposed the finding that atmospheric concentrations of GHGs endanger the public health and welfare within the meaning of Section 202(a) of the CCA. The final finding was released on December 7, 2009. The findings do not in and of themselves impose any emission reduction requirements but rather allow EPA to finalize the GHG standards proposed in 2010 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.

State Greenhouse Gas Regulations

Assembly Bill 1493 (2002)

AB 1493 required that ARB develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by ARB to be vehicles whose primary use is noncommercial personal transportation in the state.”

To meet the requirements of AB 1493, in 2004 ARB approved amendments to the California Code of Regulations (CCR) adding GHG emissions standards to California’s existing standards for motor vehicle emissions. These amendments require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes. In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of AB 1493. On December 12, 2007, the Court found that if California receives appropriate authorization from EPA (the last remaining factor in enforcing the standard), these regulations would be consistent with and have the force of federal law, thus, rejecting the automakers’ claim. This authorization to implement more stringent standards in California was requested in 2005. Since that time, EPA failed to act on granting California authorization to implement the standards. California filed suit against EPA for the delay. In December 2007, EPA Administrator Stephen Johnson denied California’s request for the waiver to implement AB 1493. The state of California filed suit against EPA for its decision to deny the CAA waiver. The recent change in presidential administration directed EPA to reexamine its position for denial of California’s CAA waiver and for its past opposition to GHG emissions regulation. California received the waiver, notwithstanding the previous denial by EPA, on June 30, 2009.

Assembly Bill 32 (2006), California Global Warming Solutions Act

In September 2006, the governor of California signed AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires the reduction of statewide GHG emissions to 1990 levels by 2020. This equates to an approximate 15 percent reduction compared to existing statewide GHG emission levels or a 30 percent reduction from projected 2020 “business as usual” emission levels. The required reduction will be accomplished through an enforceable statewide cap on GHG emissions beginning in 2012.

AB 32 directs ARB to develop and implement regulations that reduce statewide GHG emissions generated by stationary sources. Specific actions required of ARB under AB 32 include adoption of a quantified cap on GHG emissions that represent 1990 emissions levels, institution of a schedule to meet the emissions cap, and development of tracking, reporting, and enforcement mechanisms to ensure that the state achieves the reductions in GHG emissions needed to meet the cap.

AB 32 Climate Change Scoping Plan

In December 2008, ARB adopted its *Climate Change Scoping Plan*, which contains the main strategies California will implement to achieve reduction of approximately 169 million metric tons (MMT) of CO₂e, or approximately 30% from the state's projected 2020 emission level of 596 MMT of CO₂e under a business-as-usual scenario (this is a reduction of 42 MMT CO₂e, or almost 10%, from 2002-2004 average emissions). The *Scoping Plan* also includes ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- improved emissions standards for light-duty vehicles
- the Low-Carbon Fuel Standard
- energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems , and
- a renewable portfolio standard for electricity production.

Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 changed the target date to 2010. In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020.

Senate Bill 1368 (2006)

SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a greenhouse gas emission performance standard for baseload generation from investor owned utilities by February 1, 2007. The California Energy Commission (CEC) must establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

Senate Bill 97 (2007)

SB 97 acknowledges climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Resources Agency by July 1, 2009 guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA. The California Resources Agency is required to certify and adopt these guidelines by January 1, 2010.

Senate Bill 375 (2008)

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. As part of the alignment, SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) which prescribes land use allocation in that MPO's Regional Transportation Plan (RTP). The ARB, in consultation with MPOs, is required to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035.

Executive Order S-3-05 (2005)

Governor Schwarzenegger signed Executive Order S-3-05 on June 1, 2005 which proclaimed California is vulnerable to the impacts of climate change. The executive order declared increased temperatures could reduce snowpack in the Sierra Nevada Mountains, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the executive order established targets for total GHG emissions which include reducing GHG emissions to the 2000 level by 2010, to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The executive order also directed the secretary of the California Environmental Protection Agency to coordinate a multiagency effort to reduce GHG emissions to the target levels. To comply with the executive order, the Secretary of the California Environmental Protection Agency created the California Climate Action Team which is made up of members from various state agencies and commissions. The California Climate Action Team released its first report in March 2006 of which proposed achieving the GHG emissions targets by building on voluntary actions of California businesses and actions by local governments and communities along with continued implementation of state incentive and regulatory programs.

Executive Order S-13-08

Governor Schwarzenegger signed Executive Order S-13-08 on November 14, 2008 which directs California to develop methods for adapting to climate change through preparation of a statewide plan. The assessment report is required to be completed by December 1, 2010 and required to include the following four items:

- Project the relative sea level rise specific to California by taking into account issues such as coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates;
- Identify the range of uncertainty in selected sea level rise projections;
- Synthesize existing information on projected sea level rise impacts to state infrastructure (e.g., roads, public facilities, beaches), natural areas, and coastal and marine ecosystems; and
- Discuss future research needs relating to sea level rise in California.

Executive Order S-1-07

Governor Schwarzenegger signed Executive Order S-1-07 in 2007 which proclaimed the transportation sector as the main source of GHG emissions in California. The executive order proclaims the transportation sector accounts for over 40 percent of statewide GHG emissions. The executive order also establishes a goal to reduce the carbon intensity of transportation fuels sold in California by a minimum of 10 percent by 2020.

Local Greenhouse Gas Regulations

The Bay Area Air Quality Management District has established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the Bay Area. The climate protection program includes measures that promote energy efficiency, reduce vehicle miles traveled, and develop alternative sources of energy all of which assist in reducing emissions of GHG and in reducing air pollutants that affect the health of residents. BAAQMD also seeks to support current climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

Sources of Greenhouse Gas Emissions

Anthropogenic GHG emissions worldwide as of 2005 totaled approximately 30,800 CO₂ equivalent million metric tons (MMT_{CO₂e}).³ The United States was the top producer of greenhouse gas emissions as of 2005. The primary greenhouse gas emitted by human activities in the United States was CO₂, representing approximately 84 percent of total greenhouse gas emissions. Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 80 percent of US GHG emissions.⁴

The primary contributors to GHG emissions in California are transportation, electric power production from both in state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions are presented in Table 4.

Sensitive Receptors

³ The CO₂ equivalent emissions are commonly expressed as "million metric tons of carbon dioxide equivalent (MMT_{CO₂E})".

⁴ US Environmental Protection Agency, *Inventory of US Greenhouse Gas Emissions and Sinks 1990-2006*, 2008.

Table 4: GHG Inventory for California, 2009

Source Category	Annual GHG Emissions (MMTCO₂E)	Percent of Total
Agriculture/Forestry	32.32	7.1
Commercial Uses	14.33	3.1
Electricity Generation (Imports)	48.05	10.5
Electricity Generation (In-State)	55.53	12.2
Industrial	81.36	17.8
Residential Uses	28.61	6.3
Transportation	172.92	37.9
Other	23.64	5.2
Totals	456.77	100.0

Source: California Air Resources Board (CARB), *Greenhouse Gas Inventory Data – 2000 to 2009, 2011*

The Bay Area Air Quality Management District defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child care centers, retirement homes, convalescent homes, hospitals and medical clinics.

There are no sensitive receptors in the project vicinity. The project, when completed, would represent a new sensitive receptor.

Significance Criteria

Air Quality

California Environmental Quality Act (CEQA) guidelines provide that a project would have a significant air quality impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan,
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshold for ozone precursors),
- Expose sensitive receptors to substantial pollutant concentrations, or
- Create objectionable odors affecting a substantial number of people.

In 2010 the BAAQMD adopted new CEQA Air Quality Guidelines replacing their 1999 CEQA Air Quality Guidelines that provide refinements to the definition of a significant air quality impact. In 2012 the Alameda County Superior Court issued a judgement, in *California Building Industry Association v. Bay Area Air Quality Management District*, finding that the BAAQMD had failed to comply with CEQA when it adopted the 2011 thresholds. The court issued a writ of mandate ordering the BAAQMD to set aside the 2011 thresholds and cease dissemination of them until the BAAQMD had complied with CEQA. As such, this ruling effectively nullified the BAAQMD's adoption of the 2010 Air Quality Guidelines as updated in 2011.

The District's website states the following:

"The District's CEQA Guidelines are developed to assist local jurisdictions and lead agencies in complying with the requirements of CEQA regarding potentially adverse impacts to air quality. These CEQA Guidelines were updated in June 2010 to include reference to thresholds of significance ("Thresholds") adopted by the Air District Board on June 2, 2010. The Guidelines were further updated in May 2011. On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the Air District had failed to comply with CEQA when it adopted the Thresholds. The court did not determine whether the Thresholds were valid on the merits, but found that the adoption

of the Thresholds was a project under CEQA. The court issued a writ of mandate ordering the District to set aside the Thresholds and cease dissemination of them until the Air District had complied with CEQA.

In view of the court's order, the Air District is no longer recommending that the Thresholds be used as a generally applicable measure of a project's significant air quality impacts. Lead agencies will need to determine appropriate air quality thresholds of significance based on substantial evidence in the record. Although lead agencies may rely on the Air District's CEQA Guidelines (updated May 2011) for assistance in calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures, the Air District has been ordered to set aside the Thresholds and is no longer recommending that these Thresholds be used as a general measure of a project's significant air quality impacts.

Lead agencies may continue to rely on the Air District's 1999 Thresholds of Significance and they may continue to make determinations regarding the significance of an individual project's air quality impacts based on the substantial evidence in the record for that project."

As recommended by the BAAQMD, the air quality analysis utilizes the BAAQMD 1999 Thresholds of Significance. Screening procedures and mitigation measures from the 2011 CEQA Guidelines have been utilized where consistent with the 1999 CEQA Guidelines thresholds of significance.

The document 1999 CEQA Guidelines⁵ provide the following definitions of a significant air quality impact:

- A project contributing to carbon monoxide (CO) concentrations exceeding the State Ambient Air Quality Standard of 9 parts per million (ppm) averaged over 8 hours or 20 ppm for 1 hour would be considered to have a significant impact.
- A project that generates criteria air pollutant emissions in excess of the BAAQMD annual or daily thresholds would be considered to have a significant air quality impact. The current thresholds are 15 tons/year or 80 pounds/day for Reactive Organic Gases (ROG), Nitrogen Oxides (NO_x) or PM₁₀. Any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact.
- Any project with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact.

⁵ Bay Area Air Quality Management District, *BAAQMD CEQA Guidelines*, 1996 (Revised December 1999).

- Any project with the potential to expose sensitive receptors or the general public to substantial levels of toxic air contaminants (defined as a cancer risk greater than 10 in one million) would be deemed to have a significant impact.

The BAAQMD significance threshold for construction dust impact is based on the appropriateness of construction dust controls. The BAAQMD guidelines provide feasible control measures for construction emission of PM₁₀. If the appropriate construction controls are to be implemented, then air pollutant emissions for construction activities would be considered less-than-significant.

In addition to BAAQMD guidance, California Air Resources Board guidance was used to evaluate project exposures to toxic air contaminants. In 2005 the California Air Resources Board published an air quality/land use handbook.⁶ The CARB handbook recommends that planning agencies strongly consider proximity to toxic sources when finding new locations for "sensitive" land uses such as homes, medical facilities, daycare centers, schools and playgrounds. Air pollution sources of concern include freeways and highways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners and large gasoline service stations.

Greenhouse Gases

California Environmental Quality Act (CEQA) guidelines provide that a project would have a significant GHG impact if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

As described above a recent court ruling aside adoption of the 2010 CEQA Guidelines for determining the significance of greenhouse gas emissions. The 1999 CEQA Guidelines contain no thresholds of significance for GHG. While adoption of the thresholds was set aside until an environmental evaluation is conducted, the BAAQMD's GHG significance criteria, as outlined in their 2010 CEQA Guidelines, are supported by extensive studies and analysis.⁷ Pursuant to its discretion under CEQA Guidelines section 15064 (b) the City of Milpitas may apply the BAAQMD CEQA thresholds to the proposed project.

The significance threshold for GHG emissions is that a development project, other than a stationary source, would have significant cumulative impact unless:

⁶ California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005.

⁷ BAAQMD, *BAAQMD CEQA Guidelines Update, Thresholds of Significance*, June 2, 2010.

- The project can be shown to be in compliance with a qualified Climate Action Plan;
or
- Project emissions of CO₂ equivalent GHGs (CO₂e) are less than 1,100 metric tons per year; or
- Project emissions of CO₂ equivalent GHGs are less than 4.6 metric tons per year per service population (residents plus employees).

IMPACTS AND MITIGATION

1. Air Quality

Would the project:

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

The San Francisco Bay Area Air Basin is currently non-attainment for ozone (state and federal ambient standards) and particulate matter (PM_{2.5} and PM₁₀) (state ambient standard). While an air quality plan exists for ozone, none currently exists for particulate matter. The *Bay Area 2010 Clean Air Plan*⁸ is the current ozone air quality plan.

A project would be judged to conflict with or obstruct implementation of the regional air quality plan if it would result in substantial new regional emissions not foreseen in the air quality planning process. The project would not result in a substantial unplanned increase in population, employment, regional growth in Vehicle Miles Traveled, or emissions, so it could not conflict with or obstruct implementation of the air quality plan.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Development projects in the Bay Area are most likely to violate an air quality standard or contribute substantially to an existing or projected air quality violation through generation of vehicle trips. New vehicle trips add to carbon monoxide concentrations near streets providing access to the site. Carbon monoxide is an odorless, colorless poisonous gas whose primary source in the Bay Area is automobiles. Concentrations of this gas are highest near intersections of major roads.

The BAAQMD has developed a preliminary screening methodology that provides a conservative indication of whether the implementation of a proposed project would result in CO emissions that exceed the CO thresholds of significance. For a development proposal, a proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:⁹

- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is

⁸ Bay Area Air Quality Management District et al., *Bay Area 2010 Clean Air Plan*, September 15, 2010.

⁹ The CO threshold of significant is the same in the 1999 CEQA Guidelines and 2010 CEQA Guidelines, so utilization of the screening method for CO in the 2010 CEQA Guidelines is appropriate.

substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway)

Based on existing surface road volumes in the project vicinity, the project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour, and would not affect any intersections where vertical and/or horizontal mixing is substantially limited.¹⁰ Based on the BAAQMD criteria, the proposed project would have a less-than-significant impact on carbon monoxide concentrations

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

The CalEEMod model was used to quantify construction and operational emissions. CalEEMod output is included in Appendix A.

The average daily construction and operational emissions shown in Table 5 are below the BAAQMD thresholds of significance. This would be a less-than-significant impact.

d) Expose sensitive receptors to substantial pollutant concentrations?

Construction Dust

Activities associated with site preparation, and construction would generate short-term emissions of fugitive dust. The effects of construction activities would be increased dustfall and locally elevated levels of PM₁₀ and PM_{2.5} downwind of construction activity. Construction dust has the potential for creating a nuisance at nearby properties.

The BAAQMD threshold of significance for construction dust impacts is whether Best Management Practices (BMPs) are to be utilized. Consistent with guidance from the BAAQMD, the applicant has agreed to require the following BAAQMD Best Management Practices in construction contracts and specifications for all construction:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

¹⁰ California Environmental Health Tracking Program, Traffic Volume Linkage Tool http://www.ehib.org/traffic_tool.jsp

Table 5: Average Daily Construction and Operational Emissions in Pounds Per Day

	ROG	NO_x	PM₁₀
Construction Emissions	9.14	30.42	2.21
Operational Emissions	2.52	2.17	1.81
BAAQMD Threshold of Significance	80.0	80.0	80.0
Significant?	No	No	No

- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations. Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The above includes all basic BMPs identified by the Bay Area Air Quality Management District. According to the BAAQMD threshold of significance for construction impacts, construction dust impacts of the project would be less-than-significant.

Toxic Air Contaminant Exposure of Project Residents

The project would include residences that are sensitive receptors that would be exposed to mobile and stationary sources of TACs affecting the site.

The California Air Resources Board's *Air Quality and Land Use Handbook*¹¹ was developed in response to studies that have demonstrated a link between exposure to poor air quality and respiratory illnesses, both cancer and non-cancer related. The CARB handbook recommends that planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses such as homes, medical facilities, daycare centers, schools and playgrounds. Air pollution sources of concern include highways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners and gasoline service stations.

A review of land uses near the project showed that there are no refineries, distribution centers, chrome plating facilities or dry cleaners in proximity to the project site. There are a highway, rail yard, gasoline fueling facilities and two stationary emergency backup diesel generators near the project site. Exposures to these sources are evaluated below using CARB recommended thresholds of significance.

Freeways/Highways

¹¹ California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005.

CARB's advisory recommendation with respect to proximity to highways is "avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day." The project site is at least 3800 feet from I-680 and 5000 feet from I-880. Volumes on SR 237 near the site are 66,000 vehicles per day, so it would not constitute an "urban road with 100,000 vehicles/day".¹²

Gasoline Filling Stations

Small amounts of gasoline vapor (a reactive organic gas) escape to the atmosphere at filling stations due to loading losses, breathing losses, refueling losses and spillage. The BAAQMD has stringent requirements for the control of gasoline vapor emissions from gasoline dispensing facilities that require all facilities to install and maintain CARB Certified Vapor Recovery Systems.

The CARB Handbook recommendations are to avoid siting new sensitive land uses within 300 feet of a large gasoline dispensing facility (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

The latest BAAQMD inventory of permitted sources of Toxic Air Contaminants includes two gasoline fueling facilities located on the opposite site of the rail corridor located west of the project site on Bothelo Avenue.¹³ These sources are well beyond the CARB recommended minimum setbacks for sensitive receptors.

Rail Yards

Rail yards are a major source of diesel particulate air pollution. The CARB Handbook recommendations are to avoid siting new sensitive land uses :

- within 1,000 feet of a major service and maintenance rail yard.
- Within one mile of major service and maintenance rail yard, consider possible siting limitations and mitigation approaches.

These recommendations were based on a rail yard risk analysis was conducted for the Union Pacific rail yard in Roseville, California. The Roseville rail yard is one of the largest service and maintenance rail yards in the West with over 30,000 locomotives visiting annually.

¹² California Department of Transportation, *Traffic and Vehicle Data System Unit 2010 All Traffic Volumes on the California State Highway System*, 2010. (<http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2010all/index.html>)

¹³ BAAQMD, *Toxic Inventory 2009 Sorted by County by City by Plant Name*, 2009. (<http://www.baaqmd.gov/Divisions/Engineering/Air-Toxics/Toxic-Air-Contaminant-Control-Program-Annual-Report.aspx>)

The Milpitas railyard does not classify as a "major service and maintenance yard", and the CARB recommended setbacks would not apply to the proposed project.¹⁴ The Milpitas yard has a low level of rail activity and the site has a minimum setback of 575 from the nearest rail line in the yard.

Other Facility Types that Emit Air Pollutants of Concern

In addition to source specific recommendations, *Air Quality and Land Use Handbook* includes a list of other industrial sources that could pose a significant health risk to nearby sensitive individuals. The list included stationary diesel engines that are a source of diesel particulate matter (DPM). The *Air Quality and Land Use Handbook* does not contain specific recommendations for setbacks between such sources and sensitive receptors but recommends that impacts be evaluated based on a number of factors including the amount of pollutant emitted and its toxicity, the distance to nearby individuals, and the type of emission controls in place.

The neighborhood of the proposed project includes two existing stationary emergency diesel generators. One is located at Nanogram Technology located about 150 meters south of the site, the other is located at the Milpitas City Hall about 275 meters north and east of the project. Emissions of diesel exhaust from these two sources were evaluated for health risk. To assess the significance of longer-term project exposure to diesel emissions the U.S. EPA-approved SCREEN-3 model was applied to the two sources to evaluate the exposure to the closest sensitive receptor.¹⁵ Emission calculations and modeling methodology are described in Appendix B.

Diesel particulate emissions were taken from the BAAQMD toxic emissions inventory.¹⁶ Using the SCREEN-3 output, a worst-case annual average concentration of diesel particulate matter (DPM) was estimated.

The SCREEN-3 estimated annual average concentrations were used to calculate the excess cancer risk associated with exposure to diesel exhaust at the nearest residence. The calculated excess cancer risk using the very conservative SCREEN-3 model results was 0.0108 in one million for the City Hall generator and 0.0475 in one million for the Nanogram Technology generator. Separately and combined, these risk values are below the BAAQMD threshold of significance of 10 in one million contained in the 1999 CEQA Guidelines.

Conclusion

¹⁴ California Air Resources Board, *Major Class I Railyards in California*, 2011. (<http://www.arb.ca.gov/railyard/ryagreement/081005majorrymap.pdf>)

¹⁵ U. S. Environmental Protection Agency, *SCREEN-3 Model User's Guide, Report EPA-454/B-95-004*, September 1995.

¹⁶ BAAQMD, *Toxic Inventory 2009 Sorted by County by City by Plant Name*, 2009. (<http://www.baaqmd.gov/Divisions/Engineering/Air-Toxics/Toxic-Air-Contaminant-Control-Program-Annual-Report.aspx>)

The project would meet all CARB recommendations for minimum setbacks from freeways/highways, exposure to gasoline emissions and railyard emissions. A health risk assessment found that exposure to emissions from permitted toxic air contaminant sources would be below the recommended threshold of significance. Project impacts due to exposure of sensitive receptors to toxic air contaminants would be a less-than significant impact.

e) Create objectionable odors affecting a substantial number or people?

The proposed project would not include uses that have been identified by BAAQMD as potential sources of objectionable odors. Sources of odors include restaurants, manufacturing plants, and agricultural operations and industrial operations such as wastewater treatment plants and solid waste transfer stations or landfills.

As a new sensitive receptor for odors, the project is distant from the types of land uses that identified by the BAAQMD as having potential to create objectionable odors. Therefore the proposed project would have a less than significant odor impact because it would not frequently create substantial objectionable odors affecting a substantial number of people.

2. Global Warming Gases

Would the project:

f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or

g) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The CalEEMod program estimated construction and operational emission of greenhouse gases for the proposed project. Project construction emissions were calculated as 538.61 MTCO₂E, to be emitted over the construction period. Construction emissions are generally considered separately from operational emissions because construction emissions are a one-time event, while operational emissions would be continuous over the life of the project. BAAQMD has no adopted thresholds for construction emissions but recommends quantification and disclosure of these emissions.

Operational GHG emissions by source are shown in Table 6. Total operational emissions were estimated at 333.00 MTCO₂E. The CalEEMod output is included in Appendix A.

The BAAQMD significance threshold for operational GHG emissions is that a development project, other than a stationary source, would have significant cumulative impact unless:

- The project can be shown to be in compliance with a qualified Climate Action Plan; or
- Project emissions of CO₂ equivalent GHGs (CO₂e) are less than 1,100 metric tons per year; or
- Project emissions of CO₂ equivalent GHGs are less than 4.6 metric tons per year per service population (residents plus employees).

Project GHG emissions are well below the 1100 metric tons per year, so project GHG impacts would be less-than-significant.

Table 6: Operational Greenhouse Gas Emissions

Source	Annual Emission (MTCO₂E)
Area Sources	0.29
Energy	91.71
Mobile (Vehicles)	223.72
Waste	12.61
Water	4.67
Total	333.00

APPENDIX A: CalEEMod Output

DRG Los Coches
 Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	23	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company	Pacific Gas & Electric Company
Climate Zone	4	2.2		
		Precipitation Freq (Days)		58

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Used actual size of lot.
- Construction Phase - Assumed 15 month construction period.
- Demolition -
- Grading - Uses actual site acreage
- Woodstoves - No fireplaces or woodstoves
- Area Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										M/yr					
2013	0.36	2.25	1.46	0.00	0.03	0.13	0.17	0.00	0.13	0.14	0.00	235.43	235.43	0.03	0.00	236.05
2014	1.13	2.60	1.99	0.00	0.01	0.17	0.19	0.00	0.17	0.17	0.00	301.74	301.74	0.04	0.00	302.56
Total	1.49	4.94	3.45	0.00	0.04	0.30	0.36	0.00	0.30	0.31	0.00	537.17	537.17	0.07	0.00	538.61

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										M/yr					
2013	0.36	2.25	1.46	0.00	0.01	0.13	0.15	0.00	0.13	0.14	0.00	235.43	235.43	0.03	0.00	236.05
2014	1.13	2.60	1.99	0.00	0.00	0.17	0.17	0.00	0.17	0.17	0.00	301.74	301.74	0.04	0.00	302.56
Total	1.49	4.94	3.45	0.00	0.01	0.30	0.32	0.00	0.30	0.31	0.00	537.17	537.17	0.07	0.00	538.61

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										M/yr					
Area	1.09	0.01	1.29	0.00		0.00	0.16		0.00	0.16	15.48	5.78	21.26	0.02	0.00	22.02
Energy	0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	91.15	91.15	0.00	0.00	91.71
Mobile	0.19	0.33	1.75	0.00	0.24	0.01	0.25	0.01	0.01	0.02	0.00	223.61	223.51	0.01	0.00	223.72
Waste						0.00	0.00		0.00	0.00	5.63	0.00	5.63	0.33	0.00	12.61
Water						0.00	0.00		0.00	0.00	0.00	3.34	3.34	0.05	0.00	4.67
Total	1.28	0.38	3.06	0.00	0.24	0.01	0.41	0.01	0.01	0.18	21.11	323.70	344.89	0.41	0.00	354.73

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										M/yr					
Area	0.23	0.00	0.19	0.00		0.00	0.00		0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.29
Energy	0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	91.15	91.15	0.00	0.00	91.71
Mobile	0.19	0.33	1.75	0.00	0.24	0.01	0.25	0.01	0.01	0.02	0.00	223.51	223.51	0.01	0.00	223.72
Waste						0.00	0.00		0.00	0.00	5.63	0.00	5.63	0.33	0.00	12.61
Water						0.00	0.00		0.00	0.00	0.00	3.34	3.34	0.05	0.00	4.67
Total	0.42	0.37	1.95	0.00	0.24	0.01	0.25	0.01	0.01	0.02	5.63	318.28	323.91	0.39	0.00	333.00

3.2 Demolition - 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										M/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.29	0.18	0.00		0.02	0.02		0.02	0.02	0.00	26.84	26.84	0.00	0.00	26.91
Total	0.04	0.29	0.18	0.00	0.01	0.02	0.03	0.00	0.02	0.02	0.00	26.84	26.84	0.00	0.00	26.91

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										M/yr					
Hauling	0.00	0.02	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	3.37	3.37	0.00	0.00	3.37
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	1.00	1.00	0.00	0.00	1.00
Total	0.00	0.02	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.37	4.37	0.00	0.00	4.37

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										M/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.29	0.18	0.00		0.02	0.02		0.02	0.02	0.00	26.84	26.84	0.00	0.00	26.91
Total	0.04	0.29	0.18	0.00	0.01	0.02	0.03	0.00	0.02	0.02	0.00	26.84	26.84	0.00	0.00	26.91

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										M/yr					
Hauling	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.37	3.37	0.00	0.00	3.37
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	1.00	1.00	0.00	0.00	1.00
Total	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.37	4.37	0.00	0.00	4.37

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					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.07	0.59	0.31	0.00		0.03	0.03		0.03	0.03	0.00	60.40	60.40	0.01	0.00	60.52
Total	0.07	0.59	0.31	0.00	0.00	0.03	0.03	0.00	0.03	0.03	0.00	60.40	60.40	0.01	0.00	60.52

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	1.39	1.39	0.00	0.00	1.40
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.39	1.39	0.00	0.00	1.40

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.07	0.59	0.31	0.00		0.03	0.03		0.03	0.03	0.00	60.40	60.40	0.01	0.00	60.52
Total	0.07	0.59	0.31	0.00	0.00	0.03	0.03	0.00	0.03	0.03	0.00	60.40	60.40	0.01	0.00	60.52

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.39	1.39	0.00	0.00	1.40
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.39	1.39	0.00	0.00	1.40

3.4 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.24	1.33	0.91	0.00		0.09	0.09		0.09	0.09	0.00	136.35	136.35	0.02	0.00	136.76
Total	0.24	1.33	0.91	0.00		0.09	0.09		0.09	0.09	0.00	136.35	136.35	0.02	0.00	136.76

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	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.26	2.26	0.00	0.00	2.27
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.81	3.81	0.00	0.00	3.82
Total	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.07	6.07	0.00	0.00	6.09

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.24	1.33	0.91	0.00		0.09	0.09		0.09	0.09	0.00	136.35	136.35	0.02	0.00	136.76
Total	0.24	1.33	0.91	0.00		0.09	0.09		0.09	0.09	0.00	136.35	136.35	0.02	0.00	136.76

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.26	2.26	0.00	0.00	2.27
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.81	3.81	0.00	0.00	3.82
Total	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.07	6.07	0.00	0.00	6.09

3.4 Building Construction - 2014

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										M/yr					
Off-Road	0.44	2.45	1.76	0.00		0.16	0.16		0.16	0.16	0.00	269.76	269.76	0.04	0.00	270.51
Total	0.44	2.45	1.76	0.00		0.16	0.16		0.16	0.16	0.00	269.76	269.76	0.04	0.00	270.51

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										M/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	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.49	4.49	0.00	0.00	4.49
Worker	0.01	0.01	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.38	7.38	0.00	0.00	7.38
Total	0.01	0.04	0.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	11.87	11.87	0.00	0.00	11.88

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										M/yr					
Off-Road	0.44	2.45	1.76	0.00		0.16	0.16		0.16	0.16	0.00	269.76	269.76	0.04	0.00	270.51
Total	0.44	2.45	1.76	0.00		0.16	0.16		0.16	0.16	0.00	269.76	269.76	0.04	0.00	270.51

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										M/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	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.49	4.49	0.00	0.00	4.49
Worker	0.01	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.38	7.38	0.00	0.00	7.38
Total	0.01	0.04	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.87	11.87	0.00	0.00	11.88

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										Mt/yr					
Off-Road	0.03	0.17	0.12	0.00		0.01	0.01		0.01	0.01	0.00	15.19	15.19	0.00	0.00	15.24
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.03	0.17	0.12	0.00		0.01	0.01		0.01	0.01	0.00	15.19	15.19	0.00	0.00	15.24

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	1.05	1.05	0.00	0.00	1.05
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	1.05	0.00	0.00	1.05

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										Mt/yr					
Off-Road	0.03	0.17	0.12	0.00		0.01	0.01		0.01	0.01	0.00	15.19	15.19	0.00	0.00	15.24
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.03	0.17	0.12	0.00		0.01	0.01		0.01	0.01	0.00	15.19	15.19	0.00	0.00	15.24

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										Mt/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	1.05	0.00	0.00	1.05
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	1.05	0.00	0.00	1.05

3.6 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.65					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.57	3.57	0.00	0.00	3.58
Total	0.66	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.57	3.57	0.00	0.00	3.58

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.28
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.28

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.65					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.57	3.57	0.00	0.00	3.58
Total	0.66	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	3.57	3.57	0.00	0.00	3.58

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.28
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.28

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

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										Mtyr					
Mitigated	0.19	0.33	1.75	0.00	0.24	0.01	0.25	0.01	0.01	0.02	0.00	223.51	223.51	0.01	0.00	223.72
Unmitigated	0.19	0.33	1.75	0.00	0.24	0.01	0.25	0.01	0.01	0.02	0.00	223.51	223.51	0.01	0.00	223.72
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
Single Family Housing	220.11	231.84	201.71	489,239	489,239
Total	220.11	231.84	201.71	489,239	489,239

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
Single Family Housing	12.40	4.30	5.40	26.10	29.10	44.80

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										M/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	43.79	43.79	0.00	0.00	44.06
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	43.79	43.79	0.00	0.00	44.06
NaturalGas Mitigated	0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	47.36	47.36	0.00	0.00	47.65
NaturalGas Unmitigated	0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	47.36	47.36	0.00	0.00	47.65
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										M/yr					
Single Family Housing	887464	0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	47.36	47.36	0.00	0.00	47.65
Total		0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	47.36	47.36	0.00	0.00	47.65

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										M/yr					
Single Family Housing	887464	0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	47.36	47.36	0.00	0.00	47.65
Total		0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	47.36	47.36	0.00	0.00	47.65

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				M/yr			
Single Family Housing	150521					43.79	0.00	0.00	44.06
Total						43.79	0.00	0.00	44.06

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				M/yr			
Single Family Housing	150521					43.79	0.00	0.00	44.06
Total						43.79	0.00	0.00	44.06

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	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										Mtyr					
Mitigated	0.23	0.00	0.18	0.00		0.00	0.00		0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.29
Unmitigated	1.09	0.01	1.29	0.00		0.00	0.16		0.00	0.16	15.48	5.78	21.26	0.02	0.00	22.02
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										Mtyr					
Architectural Coating	0.06					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.16					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.86	0.01	1.12	0.00		0.00	0.16		0.00	0.16	15.48	5.50	20.98	0.02	0.00	21.73
Landscaping	0.01	0.00	0.18	0.00		0.00	0.00		0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.29
Total	1.09	0.01	1.30	0.00		0.00	0.16		0.00	0.16	15.48	5.78	21.26	0.02	0.00	22.02

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										Mtyr					
Architectural Coating	0.06					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.16					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.01	0.00	0.18	0.00		0.00	0.00		0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.29
Total	0.23	0.00	0.18	0.00		0.00	0.00		0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.29

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				M/yr			
Mitigated					3.34	0.05	0.00	4.67
Unmitigated					3.34	0.05	0.00	4.67
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				M/yr			
Single Family Housing	1.498547 0.944733					3.34	0.05	0.00	4.67
Total						3.34	0.05	0.00	4.67

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				M/yr			
Single Family Housing	1.498547 0.944733					3.34	0.05	0.00	4.67
Total						3.34	0.05	0.00	4.67

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				M/yr			
Mitigated					5.63	0.33	0.00	12.61
Unmitigated					5.63	0.33	0.00	12.61
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				M/yr			
Single Family Housing	27.72					5.63	0.33	0.00	12.61
Total						5.63	0.33	0.00	12.61

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				M/yr			
Single Family Housing	27.72					5.63	0.33	0.00	12.61
Total						5.63	0.33	0.00	12.61

DRG Los Coches
 Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	23	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company	Pacific Gas & Electric Company
Climate Zone	4			
		Precipitation Freq (Days)		
				2.2
				58

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Used actual size of lot.
- Construction Phase - Assumed 15 month construction period.
- Demolition -
- Grading - Uses actual site acreage
- Woodstoves - No fireplaces or woodstoves
- Area Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	5.45	41.53	28.41	0.04	3.64	2.39	6.03	0.02	2.39	2.42	0.00	4,602.90	0.00	0.48	0.00	4,612.96
2014	46.68	26.97	19.95	0.04	0.22	2.05	2.28	0.01	2.05	2.06	0.00	3,383.84	0.00	0.43	0.00	3,392.74
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	5.45	41.53	28.41	0.04	1.34	2.39	3.73	0.02	2.39	2.42	0.00	4,602.90	0.00	0.48	0.00	4,612.96
2014	46.68	26.97	19.95	0.04	0.01	2.05	2.06	0.01	2.05	2.06	0.00	3,383.84	0.00	0.43	0.00	3,392.74
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	22.52	0.38	31.18	0.02		0.00	4.20		0.00	4.19	483.66	151.20		0.75	0.03	639.83
Energy	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		286.05		0.01	0.01	287.79
Mobile	1.19	1.93	10.31	0.02	1.71	0.07	1.78	0.06	0.07	0.13		1,542.76		0.08		1,544.46
Total	23.74	2.51	41.59	0.04	1.71	0.07	6.00	0.06	0.07	4.34	483.66	1,960.01		0.84	0.04	2,472.08

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.30	0.02	1.97	0.00		0.00	0.01		0.00	0.01	0.00	3.46		0.00	0.00	3.54
Energy	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		286.05		0.01	0.01	287.79
Mobile	1.19	1.93	10.31	0.02	1.71	0.07	1.78	0.06	0.07	0.13		1,542.76		0.08		1,544.46
Total	2.52	2.17	12.38	0.02	1.71	0.07	1.81	0.06	0.07	0.16	0.00	1,832.27		0.09	0.01	1,838.79

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.31	0.00	1.31	0.00	0.00	0.00						0.00
Off-Road	5.07	36.45	23.67	0.04		2.29	2.29		2.29	2.29		3,946.47		0.46		3,956.03
Total	5.07	36.45	23.67	0.04	1.31	2.29	3.60	0.00	2.29	2.29		3,946.47		0.46		3,956.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.27	2.98	1.59	0.00	2.13	0.10	2.23	0.02	0.10	0.11		496.30		0.01		496.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	1.15	0.00	0.19	0.01	0.20	0.01	0.01	0.01		160.14		0.01		160.36
Total	0.38	3.08	2.74	0.00	2.32	0.11	2.43	0.03	0.11	0.12		656.44		0.02		656.93

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.31	0.00	1.31	0.00	0.00	0.00						0.00
Off-Road	5.07	36.45	23.67	0.04		2.29	2.29		2.29	2.29	0.00	3,946.47		0.46		3,956.03
Total	5.07	36.45	23.67	0.04	1.31	2.29	3.60	0.00	2.29	2.29	0.00	3,946.47		0.46		3,956.03

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.27	2.98	1.59	0.00	0.02	0.10	0.11	0.02	0.10	0.11		496.30		0.01		496.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	1.15	0.00	0.01	0.01	0.01	0.01	0.01	0.01		160.14		0.01		160.36
Total	0.38	3.08	2.74	0.00	0.03	0.11	0.12	0.03	0.11	0.12		656.44		0.02		656.93

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	lb/day										lb/day					
Fugitive Dust					0.14	0.00	0.14	0.00	0.00	0.00						0.00
Off-Road	4.20	34.71	18.00	0.04		1.65	1.65		1.65	1.65			3,917.77		0.37	3,925.62
Total	4.20	34.71	18.00	0.04	0.14	1.65	1.79	0.00	1.65	1.65			3,917.77		0.37	3,925.62

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00			0.00
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	0.07	0.06	0.71	0.00	0.12	0.00	0.12	0.00	0.00	0.01			98.55		0.01	98.68
Total	0.07	0.06	0.71	0.00	0.12	0.00	0.12	0.00	0.00	0.01			98.55		0.01	98.68

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.14	0.00	0.14	0.00	0.00	0.00						0.00
Off-Road	4.20	34.71	18.00	0.04		1.65	1.65		1.65	1.65	0.00		3,917.77		0.37	3,925.62
Total	4.20	34.71	18.00	0.04	0.14	1.65	1.79	0.00	1.65	1.65	0.00		3,917.77		0.37	3,925.62

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00			0.00
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	0.07	0.06	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.01			98.55		0.01	98.68
Total	0.07	0.06	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.01			98.55		0.01	98.68

3.4 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.20	28.63	19.52	0.04		1.88	1.88		1.88	1.88		3,233.11		0.47		3,242.90
Total	5.20	28.63	19.52	0.04		1.88	1.88		1.88	1.88		3,233.11		0.47		3,242.90

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.31	0.20	0.00	0.02	0.01	0.03	0.00	0.01	0.01		53.86		0.00		53.89
Worker	0.07	0.06	0.71	0.00	0.12	0.00	0.12	0.00	0.00	0.01		98.55		0.01		98.68
Total	0.10	0.37	0.91	0.00	0.14	0.01	0.15	0.00	0.01	0.02		152.41		0.01		152.57

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.20	28.63	19.52	0.04		1.88	1.88		1.88	1.88	0.00	3,233.11		0.47		3,242.90
Total	5.20	28.63	19.52	0.04		1.88	1.88		1.88	1.88	0.00	3,233.11		0.47		3,242.90

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.31	0.20	0.00	0.00	0.01	0.01	0.00	0.01	0.01		53.86		0.00		53.89
Worker	0.07	0.06	0.71	0.00	0.00	0.00	0.01	0.00	0.00	0.01		98.55		0.01		98.68
Total	0.10	0.37	0.91	0.00	0.00	0.01	0.02	0.00	0.01	0.02		152.41		0.01		152.57

3.4 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Oil-Road	4.75	26.63	19.13	0.04		1.69	1.69		1.69	1.69		3,233.11		0.43		3,242.06
Total	4.75	26.63	19.13	0.04		1.69	1.69		1.69	1.69		3,233.11		0.43		3,242.06

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.28	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.01		0.00		54.04
Worker	0.06	0.06	0.64	0.00	0.12	0.00	0.12	0.00	0.00	0.01		96.62		0.01		96.65
Total	0.09	0.34	0.82	0.00	0.14	0.01	0.15	0.00	0.01	0.02		150.63		0.01		150.69

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Oil-Road	4.75	26.63	19.13	0.04		1.69	1.69		1.69	1.69	0.00	3,233.11		0.43		3,242.06
Total	4.75	26.63	19.13	0.04		1.69	1.69		1.69	1.69	0.00	3,233.11		0.43		3,242.06

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.28	0.18	0.00	0.00	0.01	0.01	0.00	0.01	0.01		54.01		0.00		54.04
Worker	0.06	0.06	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.01		96.62		0.01		96.65
Total	0.09	0.34	0.82	0.00	0.00	0.01	0.02	0.00	0.01	0.02		150.63		0.01		150.69

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05		2,393.42		0.35		2,400.79
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05		2,393.42		0.35		2,400.79

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.11	1.21	0.00	0.22	0.01	0.23	0.01	0.01	0.02		180.97		0.01		181.21
Total	0.12	0.11	1.21	0.00	0.22	0.01	0.23	0.01	0.01	0.02		180.97		0.01		181.21

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05	0.00	2,393.42		0.35		2,400.79
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05	0.00	2,393.42		0.35		2,400.79

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.11	1.21	0.00	0.01	0.01	0.02	0.01	0.01	0.02		180.97		0.01		181.21
Total	0.12	0.11	1.21	0.00	0.01	0.01	0.02	0.01	0.01	0.02		180.97		0.01		181.21

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05		2,393.42		0.35		2,400.79
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05		2,393.42		0.35		2,400.79

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.11	1.21	0.00	0.22	0.01	0.23	0.01	0.01	0.02		180.97		0.01		181.21
Total	0.12	0.11	1.21	0.00	0.22	0.01	0.23	0.01	0.01	0.02		180.97		0.01		181.21

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05	0.00	2,393.42		0.35		2,400.79
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05	0.00	2,393.42		0.35		2,400.79

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.11	1.21	0.00	0.01	0.01	0.02	0.01	0.01	0.02		180.97		0.01		181.21
Total	0.12	0.11	1.21	0.00	0.01	0.01	0.02	0.01	0.01	0.02		180.97		0.01		181.21

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	1.19	1.93	10.31	0.02	1.71	0.07	1.78	0.06	0.07	0.13			1,542.76		0.08		1,544.46
Unmitigated	1.19	1.93	10.31	0.02	1.71	0.07	1.78	0.06	0.07	0.13			1,542.76		0.08		1,544.46
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Single Family Housing	220.11	231.84	201.71	489,239	489,239
Total	220.11	231.84	201.71	489,239	489,239

4.3 Trip Type Information

Land Use	Misc			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
Single Family Housing	12.40	4.30	5.40	26.10	29.10	44.80

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		286.05		0.01	0.01	287.79
NaturalGas Unmitigated	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		286.05		0.01	0.01	287.79
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	RBtu	lb/day										lb/day					
Single Family Housing	2431.41	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		286.05		0.01	0.01	287.79
Total		0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		286.05		0.01	0.01	287.79

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	RBtu	lb/day										lb/day					
Single Family Housing	2,431.41	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		286.05		0.01	0.01	287.79
Total		0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		286.05		0.01	0.01	287.79

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
Natural Gas Mitigated	0.03	0.22	0.10	0.00	0.00	0.02	0.00	0.02	0.00	0.02			286.05	0.01	0.01	287.79
Natural Gas Unmitigated	0.03	0.22	0.10	0.00	0.00	0.02	0.00	0.02	0.00	0.02			286.05	0.01	0.01	287.79
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	Natural Gas Use kBtu	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Single Family Housing	2431.41	0.03	0.22	0.10	0.00	0.00	0.02	0.00	0.02	0.00	0.02			286.05	0.01	0.01	287.79
Total		0.03	0.22	0.10	0.00	0.00	0.02	0.00	0.02	0.00	0.02			286.05	0.01	0.01	287.79

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	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Single Family Housing	2,431.41	0.03	0.22	0.10	0.00	0.00	0.02	0.00	0.02	0.00	0.02			286.05	0.01	0.01	287.79
Total		0.03	0.22	0.10	0.00	0.00	0.02	0.00	0.02	0.00	0.02			286.05	0.01	0.01	287.79

DRG Los Coches
Santa Clara County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	23	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company	Pacific Gas & Electric Company
Climate Zone	4			
		Precipitation Freq (Days)		
				58

1.3 User Entered Comments

- Project Characteristics -
- Land Use - Used actual size of lot.
- Construction Phase - Assumed 15 month construction period.
- Demolition -
- Grading - Uses actual site acreage
- Woodstoves - No fireplaces or woodstoves
- Area Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	5.47	41.57	26.53	0.04	3.84	2.39	6.04	0.02	2.39	2.42	0.00	4,584.38	0.00	0.48	0.00	4,594.44
2014	46.68	26.98	19.94	0.04	0.22	2.05	2.28	0.01	2.05	2.06	0.00	3,373.42	0.00	0.43	0.00	3,382.52
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	5.47	41.57	26.53	0.04	1.34	2.39	3.73	0.02	2.39	2.42	0.00	4,584.38	0.00	0.48	0.00	4,594.44
2014	46.68	26.98	19.94	0.04	0.01	2.05	2.06	0.01	2.05	2.06	0.00	3,373.42	0.00	0.43	0.00	3,382.52
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	22.52	0.38	31.18	0.02		0.00	4.20		0.00	4.19	463.66	151.20		0.75	0.03	639.63
Energy	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		286.05		0.01	0.01	287.79
Mobile	1.21	2.03	10.43	0.01	1.71	0.07	1.78	0.06	0.07	0.13		1,407.41		0.07		1,408.81
Total	23.76	2.61	41.71	0.03	1.71	0.07	6.00	0.06	0.07	4.34	463.66	1,844.66		0.83	0.04	2,336.43

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.30	0.02	1.97	0.00		0.00	0.01		0.00	0.01	0.00	3.46		0.00	0.00	3.54
Energy	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		286.05		0.01	0.01	287.79
Mobile	1.21	2.03	10.43	0.01	1.71	0.07	1.78	0.06	0.07	0.13		1,407.41		0.07		1,408.81
Total	2.54	2.27	12.50	0.01	1.71	0.07	1.81	0.06	0.07	0.16	0.00	1,696.92		0.08	0.01	1,700.14

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.31	0.00	1.31	0.00	0.00	0.00						0.00
Off-Road	5.07	38.45	23.67	0.04		2.29	2.29		2.29	2.29		3,946.47		0.48		3,956.03
Total	5.07	38.45	23.67	0.04	1.31	2.29	3.60	0.00	2.29	2.29		3,946.47		0.48		3,956.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.28	3.01	1.78	0.00	2.13	0.10	2.23	0.02	0.10	0.11		494.02		0.01		494.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.11	1.07	0.00	0.19	0.01	0.20	0.01	0.01	0.01		143.89		0.01		144.11
Total	0.40	3.12	2.85	0.00	2.32	0.11	2.43	0.03	0.11	0.12		637.91		0.02		638.42

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.31	0.00	1.31	0.00	0.00	0.00						0.00
Off-Road	5.07	38.45	23.67	0.04		2.29	2.29		2.29	2.29	0.00	3,946.47		0.48		3,956.03
Total	5.07	38.45	23.67	0.04	1.31	2.29	3.60	0.00	2.29	2.29	0.00	3,946.47		0.48		3,956.03

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.28	3.01	1.78	0.00	0.02	0.10	0.11	0.02	0.10	0.11		494.02		0.01		494.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.11	1.07	0.00	0.01	0.01	0.01	0.01	0.01	0.01		143.89		0.01		144.11
Total	0.40	3.12	2.85	0.00	0.03	0.11	0.12	0.03	0.11	0.12		637.91		0.02		638.42

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	lb/day										lb/day					
Fugitive Dust					0.14	0.00	0.14	0.00	0.00	0.00						0.00
Off-Road	4.20	34.71	18.00	0.04		1.65	1.65		1.65	1.65		3,917.77		0.37		3,925.62
Total	4.20	34.71	18.00	0.04	0.14	1.65	1.79	0.00	1.65	1.65		3,917.77		0.37		3,925.62

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.07	0.66	0.00	0.12	0.00	0.12	0.00	0.00	0.01		88.55		0.01		88.88
Total	0.07	0.07	0.66	0.00	0.12	0.00	0.12	0.00	0.00	0.01		88.55		0.01		88.88

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.14	0.00	0.14	0.00	0.00	0.00						0.00
Off-Road	4.20	34.71	18.00	0.04		1.65	1.65		1.65	1.65	0.00	3,917.77		0.37		3,925.62
Total	4.20	34.71	18.00	0.04	0.14	1.65	1.79	0.00	1.65	1.65	0.00	3,917.77		0.37		3,925.62

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.07	0.66	0.00	0.00	0.00	0.01	0.00	0.00	0.01		88.55		0.01		88.68
Total	0.07	0.07	0.66	0.00	0.00	0.00	0.01	0.00	0.00	0.01		88.55		0.01		88.68

3.4 Building Construction - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	5.20	28.63	19.52	0.04		1.88	1.88		1.88	1.88			3,233.11		0.47		3,242.90
Total	5.20	28.63	19.52	0.04		1.88	1.88		1.88	1.88			3,233.11		0.47		3,242.90

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.60		0.00		0.60	
Vendor	0.03	0.31	0.24	0.00	0.02	0.01	0.03	0.00	0.01	0.01			53.48		0.00		53.52
Worker	0.07	0.07	0.66	0.00	0.12	0.00	0.12	0.00	0.00	0.01			88.55		0.01		88.68
Total	0.10	0.38	0.90	0.00	0.14	0.01	0.15	0.00	0.01	0.02			142.03		0.01		142.20

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	5.20	28.63	19.52	0.04		1.88	1.88		1.88	1.88	0.00		3,233.11		0.47		3,242.90
Total	5.20	28.63	19.52	0.04		1.88	1.88		1.88	1.88	0.00		3,233.11		0.47		3,242.90

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.60		0.00		0.60	
Vendor	0.03	0.31	0.24	0.00	0.00	0.01	0.01	0.00	0.01	0.01			53.48		0.00		53.52
Worker	0.07	0.07	0.66	0.00	0.00	0.00	0.01	0.00	0.00	0.01			88.55		0.01		88.68
Total	0.10	0.38	0.90	0.00	0.00	0.01	0.02	0.00	0.01	0.02			142.03		0.01		142.20

3.4 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.75	26.63	19.13	0.04		1.69	1.69		1.69	1.69		3,293.11		0.43		3,242.06
Total	4.75	26.63	19.13	0.04		1.69	1.69		1.69	1.69		3,293.11		0.43		3,242.06

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.28	0.22	0.00	0.02	0.01	0.03	0.00	0.01	0.01		53.62		0.00		53.65
Worker	0.07	0.06	0.60	0.00	0.12	0.00	0.12	0.00	0.00	0.01		86.69		0.01		86.81
Total	0.10	0.34	0.82	0.00	0.14	0.01	0.15	0.00	0.01	0.02		140.31		0.01		140.46

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.75	26.63	19.13	0.04		1.69	1.69		1.69	1.69	0.00	3,293.11		0.43		3,242.06
Total	4.75	26.63	19.13	0.04		1.69	1.69		1.69	1.69	0.00	3,293.11		0.43		3,242.06

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.28	0.22	0.00	0.00	0.01	0.01	0.00	0.01	0.01		53.62		0.00		53.65
Worker	0.07	0.06	0.60	0.00	0.00	0.00	0.01	0.00	0.00	0.01		86.69		0.01		86.81
Total	0.10	0.34	0.82	0.00	0.00	0.01	0.02	0.00	0.01	0.02		140.31		0.01		140.46

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Oil-Road	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05		2,393.42		0.35		2,400.79
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05		2,393.42		0.35		2,400.79

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.12	1.12	0.00	0.22	0.01	0.23	0.01	0.01	0.02		162.54		0.01		162.77
Total	0.13	0.12	1.12	0.00	0.22	0.01	0.23	0.01	0.01	0.02		162.54		0.01		162.77

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Oil-Road	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05	0.00	2,393.42		0.35		2,400.79
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	3.90	24.53	16.67	0.03		2.05	2.05		2.05	2.05	0.00	2,393.42		0.35		2,400.79

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.12	1.12	0.00	0.01	0.01	0.02	0.01	0.01	0.02		162.54		0.01		162.77
Total	0.13	0.12	1.12	0.00	0.01	0.01	0.02	0.01	0.01	0.02		162.54		0.01		162.77

3.6 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	46.22					0.00	0.00		0.00	0.00							0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04			282.03
Total	46.67	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04			282.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00			0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00			0.00
Worker	0.02	0.02	0.15	0.00	0.03	0.00	0.03	0.00	0.00	0.00		21.67		0.00			21.70
Total	0.02	0.02	0.15	0.00	0.03	0.00	0.03	0.00	0.00	0.00		21.67		0.00			21.70

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	46.22					0.00	0.00		0.00	0.00							0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04			282.03
Total	46.67	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04			282.03

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00			0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00			0.00
Worker	0.02	0.02	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00		21.67		0.00			21.70
Total	0.02	0.02	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00		21.67		0.00			21.70

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROS	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	1.21	2.03	10.43	0.01	1.71	0.07	1.78	0.06	0.07	0.13			1,407.41		0.07		1,408.81
Unmitigated	1.21	2.03	10.43	0.01	1.71	0.07	1.78	0.06	0.07	0.13			1,407.41		0.07		1,408.81
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	220.11	231.84	201.71	489,239	489,239
Total	220.11	231.84	201.71	489,239	489,239

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
Single Family Housing	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	Non-CO2	Total CO2	CH4	N2O	CO2e
Natural Gas	0.03	0.22	0.10	0.00	0.00	0.02	0.02	0.00	0.02	0.02		266.05		0.01	0.01	267.79
Mitigated Natural Gas	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		266.05		0.01	0.01	267.79
Unmitigated 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	Natural Gas Use (kBTU)	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
Single Family Housing	2431.41	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		266.05		0.01	0.01	267.79
Total		0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		266.05		0.01	0.01	267.79

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	Bio-CO2	Non-CO2	Total CO2	CH4	N2O	CO2e
Single Family Housing	2,431.41	0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		266.05		0.01	0.01	267.79
Total		0.03	0.22	0.10	0.00		0.00	0.02		0.00	0.02		266.05		0.01	0.01	267.79

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	1.30	0.02	1.97	0.00		0.00	0.01		0.00	0.01	0.00	3.46		0.00	0.00	3.54
Unmitigated	22.52	0.36	31.18	0.02		0.00	4.20		0.00	4.19	463.66	151.20		0.75	0.03	639.83
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
	lb/day										lb/day					
Architectural Coatings	0.35					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.89					0.00	0.00		0.00	0.00						0.00
Hearth	21.22	0.34	29.22	0.02		0.00	4.18		0.00	4.16	463.66	147.74		0.75	0.03	638.29
Landscaping	0.06	0.02	1.97	0.00		0.00	0.01		0.00	0.01		3.46		0.00		3.54
Total	22.52	0.36	31.19	0.02		0.00	4.19		0.00	4.19	463.66	151.20		0.75	0.03	639.83

Mitigated

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
	lb/day										lb/day					
Architectural Coatings	0.35					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.89					0.00	0.00		0.00	0.00						0.00
Hearth	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00
Landscaping	0.06	0.02	1.97	0.00		0.00	0.01		0.00	0.01		3.46		0.00		3.54
Total	1.30	0.02	1.97	0.00		0.00	0.01		0.00	0.01	0.00	3.46		0.00	0.00	3.54

APPENDIX B: HEALTH RISK ASSESSMENT METHODOLOGY

Calculation of Emissions

Total diesel particulate emissions were taken from the BAAQMD inventory of toxic emissions. The estimated annual DPM emission from the City Hall was 0.515 pounds per year, which equates to an annualized emission rate of 0.0000074 grams per second. The estimated annual DPM emission from the Nanogram Technology generated was 1.44 pounds per year, which equates to an annualized emission rate of 0.0000207 grams per second.

Concentration Modeling

The EPA-approved SCREEN-3 model was used to calculate an annual maximum concentration of diesel particulate at the closest on-site residence. The SCREEN-3 program calculated maximum concentration at the selected distance downwind from the source. The closest residential use to the City Hall generator was approximately 275 meters from the source. The closest residential use to the Nanogram Technology generator was approximately 150 meters from the source. The short-term concentration estimated by SCREEN-3 was converted to an estimate of annual average concentration using the 0.08 factor recommended by EPA guidance. SCREEN-3 output is attached.

Calculation of Dose

Prior to estimating the cancer risk, the first step is to estimate the dose by applying the following formula to concentration:

$$\text{Dose} = (C_{\text{air}} * \text{DBR} * \text{EF} * \text{ED} * \text{CF}) / \text{AT}$$

where:

Dose = dose through inhalation (mg/kg-day)
 C_{air} = air concentration ($\mu\text{g}/\text{m}^3$) from air dispersion model
DBR = daily breathing rate (302 L/kg-day)
EF = exposure frequency (350 days/year)
ED = exposure duration (70 years)
CF = conversion factor of 10^{-6}
AT = averaging time (25,550 days or 70 years)

Age Sensitivity Factors

In accordance with Office of Environmental Health Hazard Assessment (OEHHA) revised health risk assessment guidelines¹⁷ the calculation of cancer risk estimates

¹⁷ OEHHA, *Air Toxics "Hot Spots" Program Risk Assessment Guideline, Technical Support Document for Cancer Potency Factors*, May 2009.

incorporated age sensitivity factors (ASFs) in the definition of the Cancer Risk Adjustment Factor (CRAF). OEHHA recommends weighting cancer risk by a factor of 10 for exposures that occur from the third trimester of pregnancy to 2 years of age, and by a factor of 3 for exposures that occur from 2 years through 15 years of age. Following BAAQMD guidance a CRAF of 1.7 was used.

Estimation of Cancer Risk

To estimate the cancer risk, the dose was multiplied by the cancer potency factor and the CRAF:

$$\text{Cancer Risk} = (\text{Dose} * \text{CRAF} * \text{Cancer Potency Factor})$$

where:

Cancer Risk = risk (potential chances per million)

Dose = dose through inhalation (mg/kg-day)

CRAF = Cancer Risk Adjustment Factor

Cancer Potency Factor = toxicity factor (mg/kg-day⁻¹)

06/19/12

11:47:12

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

C:\Users\Weatherman\My Documents\Business\Project Files\DRG Los Coches\CI

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	0.740000E-05
STACK HEIGHT (M)	=	1.8288
STK INSIDE DIAM (M)	=	0.0762
STK EXIT VELOCITY (M/S)	=	50.0000
STK GAS EXIT TEMP (K)	=	620.0000
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	1.8000
URBAN/RURAL OPTION	=	URBAN
BUILDING HEIGHT (M)	=	0.0000
MIN HORIZ BLDG DIM (M)	=	0.0000
MAX HORIZ BLDG DIM (M)	=	0.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 0.375 M**4/S**3; MOM. FLUX = 1.715 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN DISCRETE DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING
DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)
275.	0.2496E-02	6	1.0	1.0	10000.0	19.62	29.16	19.20

NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
----- SIMPLE TERRAIN	----- 0.2496E-02	----- 275.	----- 0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

06/19/12

11:44:10

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

C:\Users\Weatherman\My Documents\Business\Project Files\DRG Los Coches\NANOGRAM

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	0.207000E-04
STACK HEIGHT (M)	=	1.8288
STK INSIDE DIAM (M)	=	0.0762
STK EXIT VELOCITY (M/S)	=	50.0000
STK GAS EXIT TEMP (K)	=	620.0000
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	1.8000
URBAN/RURAL OPTION	=	URBAN
BUILDING HEIGHT (M)	=	0.0000
MIN HORIZ BLDG DIM (M)	=	0.0000
MAX HORIZ BLDG DIM (M)	=	0.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BOUY. FLUX = 0.375 M**4/S**3; MOM. FLUX = 1.715 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN DISCRETE DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)
150.	0.1096E-01	4	1.0	1.0	320.0	13.26	23.54	20.80

DWASH
NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
----- SIMPLE TERRAIN	----- 0.1096E-01	----- 150.	----- 0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **



**CITY COUNCIL
TRANSPORTATION &
LAND USE
SUBCOMMITTEE
Approved Meeting Minutes**

Date/Time: Tuesday, January 24, 2012, 6:00 pm

Where: City Hall Committee Conference Room

Attendants: Council Member Gomez (Chair), Council Member Polanski,

Quorum was established

1. Call to order

The meeting was called to order at 6:00 pm.

2. Public Forum *Please limit comments to 3 minutes*

There were no comments during Public Forum

3. Approval of Agenda & Minutes*

The agenda and minutes were approved.

4. Announcements

The Subcommittee did not have any announcements.

5. Old Business

A. Receive Testimony and Discussion Regarding Medical Marijuana Facilities

Chair Gomez informed Councilmember Polanski he had requested staff to compile, in memo format, suggestions on various land use recommendations. He reviewed the previous steps outlined in August, land use, regulations, taxation, outreach and details regarding a ballot initiative. He requested staff to put these items in a work plan. He asked the land use recommendations be discussed.

Acting Director Diana Barnhart introduced Assistant Planner Janice Spuller to present this item. Ms. Spuller reviewed a power point presentation. Land use recommendations and issues included:

- Quantity of allowable dispensaries- no more than 2
- On-site vs. Off-site cultivation
- Distance requirements prohibiting around sensitive uses such as: schools & child care facilities; residential neighborhoods, public facilities, and religious institutions. Ms. Spuller referred to two maps that illustrate a 1000' and 500 foot radius from these sensitive uses.

Ms. Spuller discussed additional land use regulations that can be incorporated such as hours of operation, lighting, signage, closed circuit TV, odor restrictions, on site consumption, and age requirements of employees.

Ms. Spuller presented the work plan which included this meeting's discussion on land use regulations; the February meeting on regulation and taxation and ballot measures; the March meeting to review the draft memo; and, the April City Council meeting for review and consideration.

Ms. Barnhart summarized the recommendations described in the memo. She stated the Highway Services zoning is the recommended location for the medical marijuana facilities. With the sensitive receptors, the city is limited to this zoning area. Ms. Spuller referred to the maps where Highway Services are located. Councilmember Polanski pointed out industrial areas. Ms. Barnhart stated there can be exceptions to the zoning to consider the industrial areas because the numbers of dispensaries are limited.

Councilmember Polanski said the Highway Services area would make sense for one dispensary. She added that looking at the 1000' buffer, Industrial zoning can also be another location for dispensaries should the Council decide on having two in Milpitas.

Ms. Spuller offered that off- and on-site cultivation can be recommended with regulation. Producing on-site can be limited by square footage, quantity of plants, and can be in or outdoor of the property.

Chair Gomez asked if the hesitation towards industrial zones were job-based, employers, and/or office space? Ms. Barnhart agreed.

Chair Gomez asked why the dispensary in San Jose works and is in an industrial zoning. Ms. Barnhart stated staff is determining if the interpretation of cultivation is factory versus agriculture. Ms. Barnhart stated staff will actually visit a site to see the operation.

Ms. Spuller addressed Chair Gomez's questions about permitting. After reviewing with the City Attorney's office, staff recommends not requiring permitting. Some examples of approval process from other Cities are approval through staff through the City Manager's or City Clerk's office, Police Departments, and zoning administrator to name a few. Chair Gomez stated you can not necessary permit these facilities by Federal Law, but there needs to be a public process. Ms. Barnhart stated staff is providing information and desires the Subcommittee direction on how to proceed with the preferred process.

Chair Gomez asked about transferability. Ms. Spuller stated when a permit is issued or approved, it stays with the parcel, and should the business move, a new permit is required. However with this type of facility, if transferability is desired, then this is (or could be) included in the regulations.

Ms. Barnhart indicated that the Subcommittee, at its next meeting, can discuss costs associated with regulation and create a more formal recommendation on how to administer this matter.

Councilmember Polanski concurred that if there are two [dispensaries], they should be spaced 1000' apart. Also agreed no more than two [dispensaries]. Ms. Spuller clarified if the preferred buffer is 1000'. Chair Gomez agreed the 1000' buffer is more appropriate.

Chair Gomez confirmed if the meeting once a month will get the Subcommittee to the April meeting. Ms. Barnhart concurred with once a month..

Chair Gomez opened this item for public forum.

Rob Means, 1421 Yellowstone, stated he is glad to see this item moving forward even though the populace was requesting this 10 years ago. He asked if there really is a problem with using marijuana knowing it is fine as a medicinal drug, but as a recreational drug. He suggests heavily regulating and legalizing it and gets similar results as other countries and other pharmaceutical drugs. He discussed new names for the medicine that are market tested. He referred to a letter he received with statistics on causing more health problems on criminalized rules for drugs rather than decriminalizing it and regulating. If you decriminalize and regulate it, things seem to go well. He thanked the Subcommittee for the work they are doing.

B. Tobacco Prevention Policies Discussion

Chair Gomez asked if staff performed any more research. Ms. Barnhart stated staff has not done any further research.

Chair Gomez opened the public forum.

Dr. Roger Kennedy, chair of the tobacco free coalition for Santa Clara County, thanked the Subcommittee for having them back. He addressed the recreation department. He displayed two full containers of cigarette butts that were collected in one hour's time at a local park. He discussed the risk of children eating them. He stated San Jose has a ban on smoking in parks, showing a container with less cigarette butts due to the ban.

In regards to tobacco retail licensing and referred to his experience as an internal medicine doctor. He said a life-saving intervention is to not having a kid start smoking. He said the coalition is working really hard to not smoke. He stated it is really easy for kids to get cigarettes from convenience store. He discussed statistics of childhood addiction to cigarettes. He stated there needs to be more accountability for merchants..

Vanessa Marvin, employee of the American Lung Association and member of Healthy Milpitas Coalition. They are working on smoke free parks, dining, and tobacco retail licensing. They have endorsements (shared with staff) from the Parks and Recreation and Cultural Resources commission as well as reached out at community meetings, health fairs, Milpitas library on their campaign. This is an instance where the government is not doing enough to prevent children from purchasing cigarettes. Outdoor smoking can create health issues with those who have asthma. She urged the Subcommittee to continue work on this.

Shi Yeng from Breathe California, a local non-profit, discussed smoke-free outdoor dining. Out of the 217 restaurants in Milpitas, 1/5 of restaurants have outdoor areas and half of them allow outdoor smoking. She discussed second hand smoke and how it is extremely harmful to children who are more likely to have bronchitis, asthma, irritation to eyes and ears. She stated outdoor smoking can sometimes equal indoor smoking in particulate air pollution. The public is supportive of outdoor dining restriction, with 70% of Californians and 80% Santa Clara residents feel this should be banned immediately.

The Subcommittee directed staff to work on this project.

C. Update on Possible Moratorium on Land Use Conversions for Residential Development

Ms. Barnhart reviewed a power point presentation on land use conversions and provided a memo to the Subcommittee on the history of this item. Staff was hearing a lot about potentials for conversion of industrial areas for housing. The big issue was sewer capacity. In 2006 and 2009, the City purchased enough capacity from other agencies to provide for the buildout of the Transit Area and Midtown Specific Plan areas. For every acre of residentially zoned property (R2) it requires 8,500 gallons per day, R4, a higher density, requires 12,000 gallons per day, where industrial generates 400-600 gallons per day per acre. Changing land use is a significant hit on sewer capacity.

At build out in the Transit Area, 7,100 dwelling units and Midtown, 2800 units are anticipated. In the past few months, the City Council approved 2,700 units in the Transit Area. In the Midtown, 2,200 residential units are constructed: Terra Serena, Terra Luna and Paragon projects. There are 318 units under construction with Lyons, 204 units with Shea development, and coming forward South Main Senior Lifestyles development.

At this point, Ms. Barnhart reviewed the 6 acre site once the Ooh La Lodge and Mobile Home Park, which calls for 380 dwelling units plus street amenities. The City purchased the property just north of this site. The developer has an option on two parcels between the City parcels to expand the project. He requested City assistance to proceed. Staff supports this request, as a project of the Milpitas Economic Development Corporation (EDC), as it furthers the implementation of the Midtown Plan, providing 500-600 more dwelling units.

Ms. Barnhart requested, if the Subcommittee agrees, to move forward to purchase through the Economic Development Corporation for additional housing development. City Manager Tom Williams added that in order to build out Main Street, they use the EDC money to acquire the land and use it as an asset and leverage its investment. He restated redevelopment is no longer available.

Ms. Barnhart discussed conversions and gave the examples of Fairfield Murphy Ranch, in construction which is 600 units, and Landmark Towers, 3 acres with numerous units, and Los Coches Avenue near Sinclair Frontage to the old Read Rite building, 50 acres rezoned from industrial to Town Center, allowing for residential development. The City has reacted to many interests for conversions.

Staff recommends proceed with the moratorium to prevent additional conversions.

6. New Business

Ms. Barnhart discussed all items under New Business along with Item 5C. Items 6A & 6B were discussed together as they are both Industrial Land Use Conversions. Items 6C & 6D were then discussed as they are on the same property. A discussion and direction from the Subcommittee on all items from 5C – 6D are summarized at the very end collectively.

A. Preston Pipeline Residential Development Proposal (KB Homes)

B. CA Circle Residential Development Proposal (Trumark)

C. Read Rite Single Family Residential Proposal (Braddock & Logan)

D. Los Coches Single Family Residential Proposal (Doyle Heaton)

Ms. Barnhart discussed the technical planning issues associated with the location of the Preston Pipeline Project. Staff accepted the application to allow them to present to the Council.

Ms. Barnhart then discussed the CA Circle requiring a conversion from industrial to residential. Staff can support a conversion for the east side of California Circle and recognized a mixed use zoning with complementary uses. Trumark has an application in for preliminary review.

Ms. Barnhart stated the two projects that would be considered for the land use conversion.

Ms. Barnhart reviewed this project located south of Calaveras Boulevard, west of Milpitas Boulevard, and north of Los Coches. This project is a single family residential project request.

Ms. Barnhart stated this is a single family proposal, which the City envisioned a higher density. Mr. Doyle Heaton is the developer of the proposal on the corner of Los Coches and Milpitas Boulevard. Staff recommended that this project would work better if combined with the property owned by Braddock & Logan.

Staff concern was the need for retail on Milpitas Boulevard. Ms. Barnhart stated the vision has always been for high density however the market has changed. She asked what the Subcommittee thought about these projects.

Councilmember Polanski stated her concern about all these implications of long term costs to the City these projects will have with the absence of redevelopment; specifically, what can we do relative to taking care of infrastructure, parks, streets, and public safety issues? She asked if there are options the City can utilize if we do these conversions, so that the homeowners are responsible for some of that. Mr. Williams stated they can require the formation of a Homeowners Association and also they started a Community Facilities District (CFD) that requires an in lieu fee for a revenue stream for street maintenance, lighting, and infrastructure maintenance. The newest CFD was adopted in 2008 which includes public safety. Ms. Barnhart stated it is about \$500.00 per unit.

Mr. Williams stated the zoning for the Los Coches/Milpitas Boulevard projects are permitted, however the ones at Preston and California Circle require a General Plan land use amendment.

Council Member Polanski stated her other concern is jobs-housing balance. She is not as concerned about retail in the [Los Coches area], because there is the Town Center and the Serra Center, which she is hoping for something, and noted McCarthy is almost dead, how will retail help at this project site. Mr. Williams clarified it is more commercial than retail, and would rather have this instead of 7 homes along the boulevard, which might seem awkward. Mr. Williams stated staff will work with the owners on the site planning.

Council Member Polanski directed her attention to the developers and owners and stated her concern of the loss of redevelopment that they move forward in the best interest of the City, continuing the balance to provide services for the community.

Chair Gomez agreed with Council Member Polanski and added he does not know what the City will look like after the City Manager brings forward the \$8 million budget cuts. He needs to know what the impacts are on the current residents. Mr. Williams clarified \$7 million is staffing cuts plus \$7-10 million in annual capital improvement program cuts, leaving the city at about \$18 million cuts. Council Member Gomez asked about a cursory review, not a full General Plan review, looking at the jobs-housing balance; updating the plan; and, process timeframe. Mr. Williams stated it would be a 6 month process to look at the General Plan and perform fiscal impact analysis based on number of rooftops and what that is on a per capita cost basis to maintain the residential population weighed against new rooftops and buying power to strengthen retail and commercial base.

The Subcommittee found this reasonable and the purpose of the moratorium on land use conversions.

Council Member Polanski stated when the other housing conversions were approved; she voted "no" based on where they were located and her concerns then about the services.

Mr. Williams stated if there was true interest from the development community, they would assist in paying for the [General Plan/Fiscal Impact] study and work hand in hand to create the project. If they are not willing to assist, then it would be telling in itself, per Mr. Williams

Mr. Williams summarized to proceed with the moratorium, but stated the Preston Pipelines and California Circle projects are already in the application process. He asked if the projects in process should be included in the moratorium, or be exempt.

Chair Gomez asked what the status is of the projects. Mr. Williams stated Preston Pipelines is doing analysis right now, with an estimated 3 month time. He is unsure about the California Circle project. Chair Gomez debated if Preston Pipelines should be its own village or an extension of Midtown.

There was a discussion on current approved and in-progress projects within the City.

Chair Gomez opened the item for public forum.

Chris Davenport from Trumark Companies requested clarity on the Subcommittee recommendation. This is Trumark's second project in the City. In regards to CA Circle, Trumark made commitments with the seller to go forward to bring this opportunity to this area of the City of Milpitas. He urged the Subcommittee to consider because they are further along in the project. They have firm hard dates based on entitlement schedules Trumark anticipates on getting approved.

Council Member Polanski stated they can proceed but there is no guarantee what could happen when reviewed. Mr. Davenport agreed.

Doug Heaton spoke for the Los Coches site, and wanted confirmation they are out of the moratorium because they have the Town Center zoning, 1-40 units per acre. There was talk about higher density. He showed a list of 4,000 units approved for multi-family condos and apartments. He stated some are being built and some are not. He stated

what works for this location is higher density, single family detached housing. He said retail is not economical of the site.

Doyle Heaton, also the father of the previous speaker, in support of the Los Coches site, also confirmed their zoning allows for the single family housing and made sure they are not part of the moratorium.

Eldon Shreve, 702 Wessex Place, Milpitas. He is a resident of Milpitas over 50 years and discussed the schools he attended and the changes in the town. He is the managing member of 375 Los Coches. JDS Uniphase was their tenant for many years, though they have vacant for many years, and they have maintained the building. He was first unsure of the rezone of the Los Coches to Town Center, but now feels this is a good opportunity for the City and himself. He is concerned the property of Read Rite is not maintained. It is difficult to keep a tenant ready with the deterioration of the party. He does feel it is important for the single family. It will look a lot better than what he sees now. If we don't entertain this use, what will we do? He strongly supports the project and would like to see it move forward.

Jeff Lawrence with Braddock and Logan stated he is in discussion with the Heaton, the Read Rite owner and iStarr, another property owner in the area. As redevelopment is a big blow to a lot of cities and potentially good projects, it also allows cities and developers to rethink mixed-use and high density projects. One interesting point of high density, that the real estate community is beginning to understand, is that there is a \$500-800 per month HOA assessment for these projects. He referred to a high-density project in Dublin, California, where people from this area are moving from high density residential to single family homes. He also alluded to higher test scores for schools. He indicated that her considered the Preston site, but did not pursue it, stating there were a lot of issues such as the railroad as the stumbling block. He agreed that the transit area makes sense for higher densities. He has built high density single family near I-680. This site is getting more and more unsightly and this project would benefit greatly from this single family high density project. A market study the sales prices would be around the low \$700,000s.

Mr. Williams stated the fiscal impact is all discretionary permit and staff can require the developers to perform a fiscal analysis study.

Chair Gomez confirmed the General Plan process has to go through the City Council for approval. Mr. Williams stated yes.

Ms. Barnhart summarized there will be a 6 month moratorium, with the two projects (Preston Pipelines and California Circle) exempt from the moratorium. If more time is needed, then staff will go to Council to extend the moratorium. South Main Street Lifestyles will be reviewed during close session by the City Council.

The Subcommittee agreed with the recommendations summarized by Ms. Barnhart.

7. Other Business

Ms. Barnhart confirmed the time for meeting at 5:00 pm. Ms. Barnhart stated staff will review agenda items so they are not too full of heavy items.

8. Adjourn

The meeting adjourned at 7:32 pm.



**CITY COUNCIL
TRANSPORTATION &
LAND USE
SUBCOMMITTEE
Approved Meeting Minutes**

Date/Time: Wednesday April 18, 2012, 2:00 pm

Where: City Hall Committee Conference Room

Attendants: Council Member Gomez (Chair), Council Member Polanski,

Quorum was established

1. Call to order

The meeting was called to order at 2:00 pm.

2. Public Forum *Please limit comments to 3 minutes*

There were no speakers during public forum

3. Approval of Agenda & Minutes*

The agenda and minutes were approved. The Subcommittee requested item 5B on the agenda be discussed prior to 5A

4. Announcements

There were no announcements

5. Old Business

A. Medical Marijuana Facilities Update

This item was discussed after item 5b Review of Doyle Heaton Project at Los Coches and S. Milpitas Blvd.

City Manager Tom Williams shared a policy put together by Felix Reliford and legal counsel. Mr. Williams had Mr. Reliford walk through the policy and there will be a brief legislative update.

City Attorney Mike Ogaz stated Mr. Reliford will report on the policy, Assistant City Attorney Bryan Otake will provide an update on legal issues, and he will report on AB 2321, recent proposed legislation, which was pointed out in today's newspaper.

Mr. Reliford reviewed page by page the important features of the ordinance. The first page is the purpose and intent of the ordinance, a definition of the health and safety code. The third provision is important as it limited the number of dispensaries to two. It also safe guards from sensitive uses, as it can not be located within 1000 feet of residential area, schools, park, library, day care facility, religious institutions, or other facility frequented by minors.

Council Member Polanski asked about the 1000 feet. Is there anything that can be added for 1500 feet instead? Mr. Ogaz stated to the extent that it is such a huge area that it creates a prohibition, because of the Supreme Court, but this would have to be reviewed. She asked if there is any distance for other areas, such as adult entertainment. Mr. Reliford stated they

are restricted to zoning district. In addition, he added this is highway services which isolates the locations.

Mr. Reliford continued, that application and procedures would be reviewed by the Planning Commission, allowing conditioning the permit and revoking it. Council Member Gomez thought we can not permit. Mr. Ogaz stated that there are conflicts: permitting would attempt to override federal law, however another scheme, or in use of another word, would be devised. Council Member Gomez clarified, that the policy would include the permitting process as a preference, until things work out [legally]. Mr. Ogaz concurred as this is a policy document.

Mr. Reliford reviewed the second page and the application and submittal requirements, which is 24 items through page 5. The biggest considerations are the tax history of the business, criminal background. Council Member Polanski asked regarding the verification of age, the requirement for the age of 18 or older. Mr. Otake stated for public health and safety reasons, not necessarily for a state reason. Mr. Ogaz added, in order to operate a business, the owner must be some kind of adult, though a patient can be under the age of 18. Council Member Polanski stated 18 just seem young. Mr. Reliford asked 21? Mr. Ogaz stated creating an older age requirement may create some legal issues, but staff can look into it.

Council Member Polanski added if someone wanted a permit, do we usually verify the age? Chief Graham stated he think it is almost impossible to lease a building if a person is not a legal adult. Mr. Otake stated the legal age for business transactions is usually 18. Council Member Polanski stated okay.

Mr. Reliford continued to review the items for submittal requirements, including site and floor plan, information about distance requirements, a map, lighting plan, City authorization, and statement of owners consent. In addition, the policy includes investigation by the Police department to perform background checks. Mr. Reliford asked if item number 7 on page 6, regarding a 10 day extension time for incomplete application. Council Member Polanski suggested 10 business days. Mr. Ogaz stated if there is a land use application, there really is no time line to complete it. Mr. Ogaz asked there is a reason for a limitation, so this may not be something they want to have. If the applicant doesn't want to complete their application, then they don't have to. Mr. Reliford stated with a Planning application, staff has 30 days to deem it complete. Mr. Ogaz questioned if this was a necessary limitation that would invite litigation. Council Member Polanski asked if 30 days, after it is deemed complete. If it never complete, the time line never starts.

Mr. Reliford asked Chief Graham, if there was a time line to include response. Chief Graham needs time to review, which will be 45 days after completion of the investigation. Mr. Ogaz stated there should be a time frame to perform the investigation. He added, at some point, there needs to be a point to file fees. There has to be a cut-off point, where they have to process their application or they have to reapply with new fees. Maybe it is 30-days instead of 10-days, and then they would have to reapply. Chief Graham stated whatever the time frame for the massage parlor is suitable for this review, which they believe is 60 days.

Mr. Ogaz asked this document for staff consideration or for Planning Commission review. Mr. Reliford stated this is left open for decision.

Mr. Reliford reviewed the *Criteria for Review* from the policy. He stated they have given the Police department leverage and regulations for health, peace or safety of persons living or working in the surrounding area.

Council Member Polanski stated anything that refers to ten days should be ten working days.

Mr. Reliford asked Mr. Ogaz can this permit be denied. Mr. Ogaz stated with some changes, it can be changed to more of a policy document, which in that case, should not have a denial. He suggested staff go back and look at that.

Mr. Reliford went on to discuss *Suspension and Revocation and Transfer of Permits*. He reminded the Subcommittee, a Use Permit is tied to the land and it is only permitted in the Highway Services. Mr. Reliford went onto review the 10th page regarding fees. In regards to taxing, Mr. Reliford says staff has not touched and would have to go back and discuss that at another time.

In regards to *Operations Standards*, he stated they will change hours of operations from 7 am to 11 am. Item D on Page 11, in regards to *Consumption Restrictions*, Mr. Reliford, clarified with Mr. Ogaz regarding on-site consumption. Mr. Ogaz added he would not it not on-site and not within 200 feet. Mr. Ogaz referred to page 18, and regards to the age requirements. He stated this item made sense and the discussion on employees. He said enforcement, under 18, would require going to juvenile court, he would prefer that all persons working on the premises and owning the business as adults.

Council Member Polanski asked regarding consumption, if there are creams or lotions, is that considered consumption. Mr. Ogaz stated consuming, is more of use, as opposed to eating. Council Member Gomez added that his understanding is the on-site use. Mr. Ogaz stated this item on consumption can be broadened.

Mr. Reliford reviewed the 12th page on operation standards including *Law Enforcement*, which would require security cameras, and contact information for Milpitas Police Department. Page 13 discussed *Site Management, Trash, Litter, Graffiti, and Compliance with Other Requirements*.

On Page 14, *Annual Review*, Mr. Reliford stated he would like to add there would be a six month review from the initial approval, then one year from then, which would be 18-months. This would establish the dispensary as a business, then subsequent review from law enforcement.

Mr. Reliford concluded his review of the policy.

Council Member Gomez asked if staff reviewed on site versus off site cultivation. Council Member Gomez said if that's an open question, he'd be happy to leave it out. Mr. Ogaz stated in conjunction with legislation, you may not be able to have a stand-alone dispensary. He stated Mr. Otake would discuss [legislation] further.

Mr. Otake stated as directed, staff presented the City of Lake Forest case. The last case, held this court of appeal decisions that dispensaries are authorized under state law only if they cultivate on site. If you cultivate off-site and try to transfer it, according to the Lake Forest case, this would be illegal under state law. That was reported by City staff at the last Subcommittee meeting. Since then, the decisions were published, which created conflict with other decisions in the State of California. The Supreme Court has 4 decisions that are in conflict with each other, which will be consolidated together. With the recent Lake Forest decision, the Supreme Court can now have 5. To summarize, Mr. Otake, if the Supreme Court answers all the questions answered, there are issues such as 1) whether a City can ban dispensaries, 2) can it authorize dispensaries, 3) if they can authorize dispensaries, does it have to have on-site cultivation or can they include off-site transportation. He added

other things such as if you can only authorize with a permit or allow it to happen but prohibiting areas. All these questions are consolidated by the Supreme Court. The policy in front of you today is staff recommendations with policies based on what we know now, with the caveat that the California Supreme Court will set the rules, clarify rules. The League of California Cities expects a decision within the next 120 days.

Mr. Ogaz segued to Mr. Ammiano's Bill [AB 2312]. The bill attempts to create a state wide regulation of medical marijuana facilities. This required a board to be established that would have duties that would issue and/or deny registration of facilities, regulations, etc. The Bill would supersede City laws. This would prohibit dispensaries from operating without State approval. It would require a City or County no less than 1 medical marijuana dispensary per 50,000 residents. This City would then require 1 under this bill. Approval would have to happen within 180 days or deemed approved. A medical marijuana fund would be established where fee monies would be deposited and creates an interesting authorization to allow the City to levy, increase or extend taxation of sale, storage of consumption of medical marijuana for general purposes for a combined rate to not exceed 2.5%. It expands the taxing capabilities.

Mr. Ogaz continued the bill allows for local zoning but limited to the 1/50,000 population. It preempts local regulation if you don't have a zoning law. The Board of Medical Marijuana Enforcement (BMME) will create an ordinance if you don't have one. The BMME is created of physicians, law enforcement, residents and medical marijuana patients. The legislature would appoint one. He stated a total ban can be created by voter approval. The League of Cities wrote a letter to Mr. Ammiano which opposes his bill based on several concerns regarding the draft elements of the proposed bill, asking this bill be postponed until the Supreme Court ruling is complete. The timeline was that it was introduced February 24, and will go through the public health and safety commissions. It was withdrawn by his request. Mr. Ogaz concluded his update of the legislative front.

Council Member Gomez confirmed with Mr. Ogaz if you don't have something in place [ordinance or zoning] then you would have to follow state regulations. Mr. Ogaz stated if you have a zoning or permitting process, this proposed bill supersedes it. Council Member Gomez asked if it would be best to get out with a zoning ordinance prior to this Bill. Mr. Ogaz stated that if this is considered a permitting "scheme" then this bill can also be thrown out based on the Supreme Court decision. With the zoning ordinance, the City can possibly move forward.

Council Member Gomez envisioned a report by April/May timeframe to the City Council. This shows the Council where this project is at, not proposing anything, or making recommendations as of yet. He said what is missing is a cover memo or ARS putting things in context. He was thinking staff could type something up or even (to Council Member Polanski) if it's ready, they say hey look, there is some bullet points now, nothing is changing, and however recent court cases are changing. Council Member Gomez direct Mr. Ogaz to do a quick summary of legislation cases. He said to say we are researching this issue and it's better to be prepared and not waiting until any ruling deems or bans illegal dispensaries. Council Member Gomez added we are discussing this issues with the intent to protect the schools, neighborhoods, and businesses and avoid the over proliferation San Jose has. What we don't want is the state to take this over and adopt a one size fits all approach to the issue. We say this is a moving document and is subject to change. We aren't asking Council for approval but maybe we are looking for other suggestions and ideas as we keep tracking this issue. The reason we brought this to the Subcommittee is to have a public discussion.

Mr. Ogaz said turning this from proposed legislation and policy is to consider it as a model ordinance we are proposing. This is something we want the Council to consider for adoption at some point and time with modification as they deem fit. With the cases, we suggest not moving forward until the Supreme Court makes a decision.

Council Member Polanski agreed this is a starting point because the Supreme Court will make a decision in the next 60-120 days. We have the ban in place; we have the policy that has some good solid things in it if we can't ban them, that would protect our citizens with the concerns of our Chief [of Police]. Mr. Reliford clarified if this would be a memo or an ARS. The Subcommittee said it will be an ARS. Council Member Polanski passed a letter out. Her concern is as a Subcommittee we do our due-diligence. She said Linda Windisch sent a letter to the school Board memos and PTA members. Council Member Polanski read the letter regarding Mrs. Windisch's reference to the January TALU meeting minutes. She read the concerns of Mrs. Windisch's misunderstanding that the proposed number of dispensaries would be within 1000 feet of sensitive uses (schools, neighborhoods, religious facilities). This is incorrect and Council Member Polanski is concerned that this letter has gone to elected officials and how do we address this. Will the ARS go to PTA members, Superintendent and MUSD Board? Mr. Ogaz stated once the agenda goes out; staff can send it to these members and the on-site principals in the City. Council Member Polanski said separate from the political area, when someone going out there and spreading this type of fear and lies to the community, we should be able to do something to say this isn't true. Don't be scaring our citizens for political garbage you want. She was wondering if there is something we would be able to do. She thinks it's important, especially the Superintendent and the governing [Milpitas Unified School] Board, because she wouldn't want these people to feel we are doing something that would any way ever endanger the schools, the children, or the community.

Council Member Gomez said he personally feels a follow up with an individual letter to these people [recipients of the Windisch letter] should be done. Council Member Polanski agreed.

Council Member Gomez said Council May 1 with the ARS Council Member Polanski agreed and stated the ban stays in place until we see what the Supreme Court does. Gomez said it's important we are studying the issue, not a proposal.

Mr. Ogaz said it's important if there are particular concerns of the Council irrespective of what the law ultimately says, there maybe issues, methodologies, etc that are disfavored. We should know about that. It would be unfortunate if we went down the road, if we had a concise specific ordinance to find out the majority of the council doesn't want to go that way. It is good to find out now, than going further into.

Mr. Ogaz said the ARS would be prepared for the first meeting of May.

B. Review of Doyle Heaton Project at Los Coches and S. Milpitas Blvd.

This item was discussed prior to item 5a Medical Marijuana Facilities Update.

Council Member Gomez stated the applicant requested this item be discussed to confirm items on this project on Los Coches and S. Milpitas Blvd.

Staff Felix Reliford, Acting Planning & Neighborhood Services Director, referred to an attachment of the January Transportation and Land Use Subcommittee which discussed this project. This was a proposed project with concerns that this area is affected by the [Land Use] Moratorium. This area is zoned Town Center designation, permitting housing. The issue was the clarity in the minutes in regards to the frontage of the property on Los Coches and South Milpitas Blvd. Mr. Reliford asked if it is appropriate for applicant to continue a

request for a full residential project or would it be more beneficial to the City to have commercial along the frontage of S. Milpitas Blvd at this area. Staff is requesting clarification prior to the applicant moving forward with the direction of the Subcommittee. In review of the previous minutes, staff could not quite tell what the direction is.

Council Member Gomez asked is how do we know if commercial works?

Mr. Reliford stated the developer looks at financial impact in getting commercial funding, which other developers have mentioned to him as well. Staff states they look at it as a land use and compatibility standpoint and what is appropriate for a site. Staff tries to give recommendations based on sound land use decisions.

Council Gomez asked can commercial work there; does Milpitas need another strip mall? Mr. Reliford said any commercial would have to be small. Mr. Reliford also reminded the Subcommittee that the Read-Rite site proposes another 50-70 units would less likely be suitable for commercial.

Council Member Polanski said with the Town Center and Serra Center across the street, she is concerned this is a small area and how does access and parking work? Mr. Reliford said the access would come from Los Coches, he doesn't believe a driveway from S. Milpitas Blvd. given the traffic patterns. Council Member Polanski asked what kind of retail would fit. Mr. Reliford stated it would be a small strip commercial if the Council desires 10,000-15,000 sf. He referred to an old plan the developer provided staff, and pointed out the frontage area. He stated the developer has concerns in regards to marketing and funding. In fairness to the developer, other developers stated they are having problems getting commercial funding.

Council Member Gomez asked if it's a 7-Eleven or Quiznos. Mr. Reliford agreed and possibly businesses that would attract businesses to the south. With about 15,000 sf, it will not be another town center. Council Member Gomez asked what the benefit would be. Mr. Reliford stated, tax benefit, theory housing doesn't pay for itself, but mostly taxes would be the biggest benefit.

Council Member Gomez noted staff didn't seem to have strong opinions about this. Mr. Reliford stated staff said other commercial areas, such as the Serra Center would provide much larger area for the City. Mr. Reliford said if there is housing, staff can make it work.

City Manager Tom Williams stated the only thing that comes to mind is the urban flow. To have residential on Milpitas Blvd. is somewhat of an issue and was hoping the developer would consider townhomes in order to install good urban design. He is not sure the developer would entertain this, but just throwing out the idea.

Council Member Polanski asked what the long-term vision of Milpitas Blvd. She knows in the Transit Area, what is the vision, such as Robson homes where Cal Skate used to be. Mr. Reliford stated obviously with Town Center, we do envision some type of commercial, which there are banks, and some type of housing which this is.

Council Member Polanski said she talked to the developers and pointed out one of the areas she expressed concerns, because of that intersection, how it would work. She is curious to hear about the high density with the retail, maybe. She stated she hoped for a Whole Foods or Trader Joes in another area.

The Subcommittee invited the developer to speak.

Ed McGovern, the representative from Doyle & Heaton; He also said Doyle and Eldon are the landowners. He thanked the Subcommittee to allowing them to come to the meeting. He said retail on the site, obviously had a number of discussions about it. The short answer, from a practical standpoint, from the market place standpoint, it would be a one-off retail store like a 7-Eleven or something like that. You have to think about the attraction, and what the people will come from. You have small shops in the retail mall areas north of Calaveras, with a number of them empty. What retail developers want is synergy, with foot traffic. A medical office building and two banks with a piece of empty property is what is currently there. He stated they have tried to do due-diligence and studied retail and empty retail space in Milpitas. He shared a graph. Mr. McGovern stated there is 40% empty retail space with the absorption space, still in the negative. There is more space emptying than people filling the empty spaces you have. Mr. McGovern stated the retail, in their open, would happen. They don't think it will be financed per their broker. Mr. McGovern stated he thinks they wouldn't have more than 10,000 sf if there were to be retail, given parking and other things.

Council Member Polanski gave the handout to staff for their records.

Mr. McGovern added, in regards to townhomes and high density, they did their due-diligence with the bankers on the product-type people are looking for, what can be financed, what can be bought or sold. He stated Milpitas has a lot of multi-family approved but not built and there is more of a demand for single family, big single family homes. He had discussion with Mr. Reliford, and said there is a demand for the units. Along with Braddock & Logan, they are looking at single-family. Residences can use the under-pass to patronize the stores [on North Calaveras Blvd], creating foot traffic.

Mr. McGovern stated they would love to get direction. They can finance and build it quickly and create traffic for the empty retail space.

Mr. Heaton added there is over 400,000 sf of retail empty. Showing the 40%, with no net leasing, every time it is leased, another goes out. He says there may be 10 years of retail supply without building big boxes. Mr. Heaton, stated by having heavy landscaping with berms, trees, fences, with 30 feet from the frontage, with access of Los Coches, they can make it work. He really thinks, with a 5th version, going back and forth, this is the best reiteration. As per a letter from their broker, retail is a non-starter. If that was the case, someone would have bought it already. Mr. McGovern stated this land was owned by a church and they are looking for more of a higher return on their land. Mr. Heaton stated he is available to discuss and staff has his contact information.

Council Member Polanski stated, looking from her window, putting anything like a 7-Eleven or sandwich shop doesn't make sense. Because you have the dental across the street, and the others, the vision doesn't seem to work. Mr. Reliford said they would only be concerned with the commercial retail that the developer would have to find. He also said, if it's the desire of the Subcommittee, staff will work with the developer for special treatment, because of the trucks and traffic at the intersection of Los Coches and Milpitas Blvd.

Council Member Polanski asked what she envisioned, is anything small enough, with a strip type mall, would not look good to her. She is not opposed to doing the houses, however she is really concerned, which she expressed to them, is Calaveras Blvd and Milpitas Blvd as a really busy, and dangerous intersection. Whatever takes place for that pathway and walking under so people can come to the Town Center and Beresford Center safely. Mr. Reliford stated the developers would have to improve that walkway to have safe accessibility for shoppers and strollers to travel. Council Member Polanski wants to make sure the pathway is lit. She is not opposed to it; as long as staff works with them to ensure that the residents

are buffered from the intersection. Council Member Gomez totally agreed with Council Member Polanski.

6. Other Business

There was no other business

7. Adjourn

The meeting adjourned at 3:14 pm.